

INTEGRATING MIND AND BODY HEALING
INTO PRIMARY CARE:
A TEAM APPROACH

by

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ABSTRACT

This publication examines the impact of integrating mental health into primary health care. Mental Health Integration (MHI) in Intermountain Healthcare (IH) has changed the culture of primary health care by standardizing a team-based care process that includes mental health as a normal part of the routine medical encounter. MHI sees mental illness through a new lens integrating mind and body and introduces a team approach that values both the patient and staff experiences.

This multisite comparative study using qualitative techniques reports on health outcomes associated with MHI for patients and staff. Fifty-nine patients and 50 staff were interviewed to evaluate the impact of MHI on care for depression. Patients receiving MHI reported an improved relationship with caregivers ($p < .001$) and improved overall functioning in their lives. Patients valued responsive shared decision processes with team care givers ($p < .0001$) and coordinated follow-up plans ($p < .05$). Patients receiving care for depression via MHI were more likely to participate in treatment decisions, self-management, follow up care ($p < .01$) and lifestyle change ($p < .05$) and desire to share lessons learned with others suffering from depression.

Staff working in MHI clinics were more comfortable addressing mental health ($p < .01$) and had more time to spend with patients due to team support ($p < .05$). They defined MHI as an organized usual team process that empowered them to provide better care to patients ($p < .001$). As clinics became more committed to MHI staff viewed

mental health as a normalized part of their practice ($p < .01$). Staff reported that the quality of the care provided had improved as a result of MHI ($p < .01$).

Mental health problems rank second in chronic disease today. Normalizing mental health as an organized team process within the context of primary care offers promising results for improving outcomes and lowering costs. Using the patients' perceptions of the quality of care and its impact is timely focus for realigning health reform efforts towards patient-centered care.

To my husband Gerard and my sons Garrett, Sean, Timothy, Kyle, and Charlie

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INTRODUCTION

The purpose of this study is to analyze the impact of the Intermountain Healthcare's Mental Health Integration (MHI) program on the cost of care and quality of outcomes for patients suffering from depression and for staff treating them. MHI has changed the culture of primary health care by standardizing a team-based care process that includes mental health as a normal part of the routine medical encounter. MHI sees mental illness through a new lens integrating mind and body and introduces a team approach that values both the patient and staff experiences.

Contemporary Western medicine is based on a tradition of mind-body dualism and assumptions that diseases occur independently of social context (Locke & Farquhar, 2007; Lupton, 2006). Mind-body dualism affects the health exchange experience of both caregivers and receivers. When mental health is treated separately from physical health, experiences are often stigmatized and fragmented. New approaches to mental health are important because 45% of aging Americans have a chronic disease (CDC, 2012) and mental health ranks second to cancer in chronic disease prevalence (CDC, 2012). Few attempts have been made to understand the social and cultural context of medical encounters for chronic diseases and the value of results achieved relative to the cost of the encounters. The Affordable Care Act (ACA) of 2010 is guiding the reform of a healthcare system that rewards more treatment of more people to a system that rewards providers for building value for patients (APHA, 2013).

It is well established that coordinated multidisciplinary teams and collaborative care results in improved outcomes for patients (Ghorab & Bodenheimer 2012; Katon et al., 2010; Mukamel, 2005). Successful multidisciplinary teams require effective leadership and practice that promote a culture of shared reliability and accountability (Ghorab & Bodenheimer, 2012; Margolius & Bodenheimer, 2010; Markova, et al., 2012; Roth, 2012; Tapp et al., 2012; Yarnall et al., 2003). In the siloed structures of current institutions delivering health care, uncoordinated teams can create ambiguous human exchanges that can be costly and inefficient. Even effective teams are not evaluated or reimbursed as part of the health care exchange. They are simply considered “part of the business” of delivering health care with no value linked to patient outcomes. Therefore these relationships can incur high transaction costs for the delivery institution (North, 2000).

“We must understand the outcomes that matter to patients and families and what it costs to achieve them and we need teams that own the work of defining, measuring and improving value” (Lee, 2012). No single outcome tells the whole story of the patients’ health experience and no single factor or outcome captures the multifaceted results of care (Porter, 2010). Porter conceptualizes value as both dependent on the patient’s experiences and measured by the health outcomes achieved.

Effective team functions that include patient-centered preferences and shared treatment decisions are more likely to be associated with better outcomes (Barg et al., 2006; Edward & Elwyn, 2009; Weeink, 2011). While these benefits of team care are well recognized, little research has been done to understand how patients being treated and staff providing care in primary care experience the new team paradigm (Saba, 2012).

Insufficient evidence exists on effective health care delivery strategies to engage patients in managing their symptoms and shared decision-making (Frosch et al., 2010) although there is widespread agreement that such approaches improve quality of health care delivery.

This study takes a socio-cultural approach, to facilitate understanding of the personal and cultural factors experienced within the “seven minute” health encounter between doctors, patients and families (Goodson & Vassar 2012; Lupton, 2006; Payer, 1998) as well as elucidating critical aspects of team exchanges among staff and patients. Social factors such as access to effective quality care and social support have become increasingly critical to creating a culture of medical care that achieves positive health outcomes and reduces costs and mortality (CDC, 2012; Crespo & Shrewsberry, 2007; Gallo et al, 2007; Gensichen et al., 2009; Grumbach & Bodenheimer, 2004; Kim et al, 2010; Khan et al. 2008; Kolko et al. 2011; Reiss-Brennan et al., 2010; Schoen et al. 2008). Understanding personal factors related to the patient’s experience of the health encounter and those related to the culture of team work in integrated mental health care is critical because costly chronic diseases are spreading at epidemic rates throughout families and communities and are responsible for 75% of the trillion dollars spent on health care (CDC, 2012).

Mental Health Integration (MHI) is a recently introduced team-based delivery approach that integrates recognition, screening, treatment, and management of mental health within the routine medical encounter. The term “integration” is intended to signify the coordination of different team roles and processes into a functioning, organized whole. Relationships with different team members fill different needs of patients and

complement one another. Such integration mends the traditional mind-body separation within the context of a functioning team. MHI team based care has been developed and sustained over the span of 12 years. It has changed the culture of mental health care by providing psychological safety and equity for problems that are both taboo and time consuming when treated in a busy medical practice. These problems when normalized through trusting team relationships improve the quality of the health exchange and reduce unnecessary costs (Reiss-Brennan et al., 2010). While MHI has been well documented as a successful healthcare approach in terms of patient outcomes, we know less about the dynamics of how this has been achieved and implemented over time.

The overall aims of this study are to identify the key factors in patient and staff social interactions underlying the improved outcomes observed in the MHI clinics by comparing clinics where MHI is just being adopted with those where it is well established. The focus here is on examining with qualitative and quantitative data how MHI (a) improves outcomes for patients; (b) furthers an effective team approach among staff; and (c) alters the culture of health care delivery. Staff perspectives will be gathered to explore whether the intended goals of MHI process are in line with patient perceptions and outcomes. Using the patients' perceptions of their experiences with team care and corresponding outcomes to improve health care quality is timely focus for realigning health reform efforts towards patient-centered care.

CHAPTER 1

MENTAL HEALTH INTEGRATION: NORMALIZING TEAM CARE

Abstract

This article examines the impact of integrating mental health into primary health care. Mental Health Integration (MHI) within Intermountain Healthcare has changed the culture of primary health care by standardizing a team-based care process that includes mental health as a normal part of the routine medical encounter.

This study using qualitative techniques, reports on health outcomes associated with MHI for patients and staff. Fifty-nine patients and 50 staff were interviewed to evaluate the impact of MHI on depression care. Patients receiving MHI reported an improved relationship with caregivers ($p < .001$) and improved overall functioning in their lives. Staff providing care in MHI reported that patients experienced improved access to mental health care, improved overall patient productivity in daily functions ($p < .01$) and improved access to team care. As MHI became routine, complementary team interventions were discussed more frequently by patients ($p < .0001$). Patients receiving care for depression via staff teamwork were less likely to seek ER services ($p < .05$) and utilize primary services for mental health ($p < .01$). Mental health problems rank second in chronic disease today. MHI offers promising results for improving the

quality and cost of effective treatment for chronic disease. This research provides guidelines for organizing mental health care, staff productivity, and patient satisfaction and indicates fertile areas for use of this approach to research.

Introduction

The purpose of this study is to identify key personal and social factors related to the transformation of medical care delivery called Mental Health Integration (MHI). These factors may explain the improved cost and quality outcomes that have been observed for the treatment of depression in MHI primary care clinics (Reiss-Brennan et al., 2010).

Contemporary Western medicine is based on a tradition of Cartesian mind-body dualism and assumptions that diseases occur independently of social context (Lupton 2006; Locke & Farquhar, 2007). Mind-body dualism affects the health exchange experience of both caregivers and receivers. When these groups treat mental health as separate from physical health, the experience is often stigmatized and fragmented. Though these attitudes are changing, 45% of aging Americans have a chronic disease (CDC, 2012) and mental health ranks second to cancer in chronic disease prevalence (CDC, 2012). Few attempts have been made to understand the social and cultural context of medical encounters for chronic diseases and the value of results achieved relative to the cost of the encounters. The Affordable Care Act (ACA) is guiding the reform of a health system that rewards more treatment of more people to a system that rewards providers for building value for patients (APHA, 2013). Porter (2010) conceptualizes value as being dependent on patients' experiences, and measured by the health outcomes achieved, and not by cost alone.

This article takes a socio-cultural approach inspired by MHI, to facilitate our understanding of the personal and cultural factors experienced within the ‘seven minute’ health encounter between doctors, patients and families (Goodson & Vassar, 2012; Lupton 2006, Payer, 1998). Moreover it elucidates aspects of team exchanges among staff and patients. Social factors such as access to effective quality care and social support have become increasingly critical to creating a culture of medical care that achieves positive health outcomes and reduces costs and mortality (CDC, 2012; Crespo & Shrewsberry, 2007; Gallo et al, 2007; Gensichen et al., 2009; Grumbach & Bodenheimer, 2004; Khan et al., 2008; Kim et al, 2010; Kolko et al., 2011; Reiss-Brennan et al., 2010; Schoen et al., 2008;). Understanding personal factors related to the patient’s experience of the health encounter and those related to the culture of teamwork in integrated mental health care is critical because costly chronic diseases are spreading at epidemic rates throughout families and communities and are responsible for 75% of the trillion dollars spent on health care (CDC, 2012).

Mental Health Integration is a more recent team-based delivery approach that integrates recognition, screening, treatment and management of mental health within the routine medical encounter. The term “integration” is intended to signify the coordination of different team roles and processes into a functioning, organized whole. Relationships with different team members fill different needs of patients and complement one another. Such integration corrects the traditional mind-body separation within the context of a functioning team. MHI team based care has been developed and sustained over the span of 12 years. It has changed the culture of mental health care by providing psychological safety and equity for problems that are both taboo and time consuming when treated in a

busy medical practice. These problems when normalized through trusting team relationships improve the quality of the health exchange and reduce unnecessary costs (Reiss-Brennan et al., 2010). While MHI has been well documented as a successful healthcare approach in terms of patient outcomes, less is known about how this has been achieved and implemented overtime.

The overall aims of this study are to identify the key factors in patient and staff social interactions underlying the improved outcomes observed in the MHI clinics. The focus here is on examining with qualitative and quantitative data how MHI; (a) improves outcomes for patients, (b) furthers an effective team approach among staff and (c) alters the culture of health care delivery. Subsequent aspects of this research will address possible barriers and facilitators for patients and for staff in integrating mental health services into primary care. Staff perspectives will be gathered to explore whether the intended goals of MHI process are in line with patient outcomes. One of the key factors of MHI is the diffusion of the team care process over time. The longitudinal impact of this process on patient outcomes and practice changes are the focus of this study.

Background and Significance

The last decade saw a substantial increase in the proportion of people with serious mental illness and substance abuse disorders who reported receiving care from primary care physicians (PCPs) and hospital emergency rooms (AHRQ, 2012; Economist 2009; Olfson et al., 2002; Wang et al., 2005). Depression, the most common mental health condition seen in primary care, often occurs with, and compromises, care of other chronic illnesses; yet, due to stigma and secrecy, it often goes undetected, undiagnosed, or under-treated (Mojtabai, 2009; Rost et al., 1998; Wells et al., 2000). Somatized medical

complaints are commonly the presenting symptom of many undiagnosed depressed patients. Depression is a complex chronic medical condition that imposes significant social and economic burdens on patients, families, and employers (Chisholm et al., 2004; Druss, et al. 2000; Goetzel et al. 2002; Lin et al., 2000; Soni 2009; Strine et al., 2008; Welch et al. 2009). Available and tested evidence-based collaborative team approaches such as MHI and guidelines for treating depression within the context of primary care are effective, but they remain difficult to adopt and implement in real-world practice (Gilbody et al., 2006; Lorig et al., 2001).

What is Mental Health Integration?

Over the last 12 years, Intermountain Healthcare has developed MHI as a comprehensive team-based innovation for caring for the mental and physical health of patients and their families. “MHI is defined as a standardized clinical and operational team relational process that incorporates mental health as a complementary component of wellness and healing for life” (IH, 2017). The MHI team care process model (CPM) has spread a new social message of normalizing mental health as a routine part of everyday health exchanges between patients and their doctors and among clinic staff. MHI introduces a new institution in the culture of mental health care in that it sees mental illness through a new lens integrating mind and body and establishes a team approach that values both the patient’s and staff’s experiences. The program is composed of five key MHI elements—leadership, team-based care, information technology, partnering with community stakeholders, and financing.

The MHI team includes all of the primary care providers (PCPs) and support staff, in addition to practice managers, mental health professionals, community advocates, care

management processes and the patient and his/her family. This multidisciplinary clinical team is organized under the leadership of the clinic physician in partnership with the patient and family; each member of the team is trained in specific responsibilities that contribute to a collective holistic care plan. Team member communication and shared decision making follows standardized care process model protocols and is facilitated by a shared electronic medical record (EMR). Patients have direct email or phone access to their physician and team.

The MHI program trains all clinic staff in supporting the patient experience of mental health as a routine part of healthcare. The exclusion of the social and psychological experience of chronic illness from the healthcare provided today is strongly influenced by the power of secrecy resulting from historical social stigma associated with mental health issues. The team members learn to confidently address mental and physical needs together through education and expanded team support. Sustained and connected team relationships offer a potential contextual explanation of the improved MHI cost and quality outcomes.

Team-based care, such as MHI, requires a fundamental change in physicians' mindsets (Bodenheimer, 2011). Many practices claim to have teams, but the physicians provide all the care and delegate tasks to staff or refer to specialty providers. The end result of this traditional delivery model is fragmented, uncoordinated care and poor health outcomes (Katon et al., 2010). The integration model goes far beyond "co-location" of a specialty care provider or "physician solo" care. It is a team-based approach where complementary roles include the patient and family and are operationalized at the clinic improving both physician and staff communication. Patients treated in MHI clinics also

show improved satisfaction, lower costs, and better quality outcomes and were 54% less likely to use higher order and expensive emergency room services (Reiss-Brennan et al., 2010).

The MHI innovation has been introduced and adopted across a rapidly growing medical group that provides community care for over 800,000 patients and their families per year in the state of Utah. It has been diffused across diverse (Family Medicine, Pediatrics and Internal Medicine) primary care practice settings. Rogers (1995) defines ‘diffusion’ as a social change process in which a new idea is communicated through channels, over time among members of a social system. Through this diffusion process members communicate, create and share information related to the new idea such as MHI, to reach a mutual understanding, a process that alters the structure and function of the social system of health care delivery. MHI is designed to facilitate diffusion.

The exchange of innovation information among peers is the heart of the diffusion process. The new process structure guides the social interactions of its team members and accompanying norms become the established social patterns that define the range of tolerable behaviors for the system. Opinion leaders and change agents are key members of the social system that will be needed to communicate and implement the innovation Rogers (1995). Physician, nursing and operational regional local leaders were identified and trained as MHI champions and change agents to communicate and monitor the diffusion and adoption of the new care process structure among their organized groups of clinic teams.

Methods

This investigation explores the perceptions of staff and patients involved in MHI during three phases of MHI diffusion. The three phases were identified by the clinic's stage of implementation commitment to MHI: potential, adoption and routinized (Rogers, 1995). (1) "Potential clinics" are trained in the MHI CPM, are assessing current resources and readiness for MHI adoption, but do not have an MHI operational plan. Therefore potential clinics have not yet committed to implementing MHI. (2) "Adoption clinics" have implemented MHI for at least 2 years. During this time they have engaged leadership champions, recruited and hired team staff, redesigned roles and workflow and offered MHI care to their patients. Adoption clinics request support from institutional leaders to help resolve barriers and resistance to change. They have operational commitment to pursue MHI goals. (3) "Routinized clinics" have practiced MHI for over 6 years. They have fully implemented and sustained the five key MHI elements for over 5 years. Routinized clinics have habituated the innovation and provide greater access to an integrated health/medical home team with coordinated care for depression. These clinics have continuous established administrative leadership and clinical teams; MHI workflows are considered a clinic norm. Clinic implementation of these five key MHI elements are monitored and reinforced by regional leaders (nurses, physicians, managers) who promote their team's progress towards the routinized phase of implementation.

Design

This is a 2-year multiclinic comparative case study of nine primary care clinics within Intermountain Healthcare in Salt Lake City, Utah. Of 80 clinics implementing

MHI, three groups of clinics used in prior research (Reiss-Brennan et al., 2010) were selected based on their phase of implementation: three potential; three adoption; and three routinized clinics. Across each of the three phased groups, clinics were matched for 12 months (2010) by patient visit volumes, numbers and types of provider, and payor mix (% Commercial, % Medicaid, % Medicare % Uninsured/Charity). Twelve-month visit volumes were further analyzed for the number of mental health related visit claims. The claims analysis utilized ICD-9 mental health related codes documented in the depression registry. All patients treated at the clinics have access to physical and mental health care regardless of their ability to pay.

Sampling

Staff Recruitment

To understand the impact of MHI on staff, a purposive sample of 50 clinic staff was drawn from the three matched clinic phased groups based on their team role. The clinics employed staff informants for each of the phased groups, including physicians, clinic managers, nurse care managers, mental health specialists and medical support staff.

Patient Recruitment

To obtain patients views, selection criteria included a random sample of 59 adult male and female patients over 18 years who received care for depression from their primary care physician (PCP) any time in the previous 12 months. Twenty patients were selected from each of the three phased clinic groups. The sample was stratified by those who received treatment from their PCP only, and those who had additional contact with a care manager, mental health specialist, or both. Criteria for stratification included (1)

new depression diagnosis in registry, (2) at least one primary care visit, (3) at least one MHI visit with (care manager or mental health specialist) and (4) at least one prescription order or refill.

Randomly selected patient informants were approached by their nursing care managers and asked if they would voluntarily participate in the study. The care managers were trained to review and describe the purpose of the study, to determine the patient's willingness to participate and complete consent documentation. Patients identified as cognitively impaired or having intent to harm themselves or others were excluded. Patients who were identified by the care manager or primary care provider as currently enrolled in a patient-therapist relationship for their care were excluded to prevent potential disruptions to a ongoing therapeutic relationship.

Data Collection

Primary data were collected from interviews conducted face to face and by telephone. Secondary data that pertain to patient visits were extracted from the administrative databases.

The semistructured interview guide (Appendix B) included open-ended questions that probed respondents' perceptions of their experiences of providing or receiving care for depression or other mental health concerns in the primary care setting. Patients were asked to share their thoughts about what positive outcomes they experienced, what factors, if any, promoted the perceived positive outcomes, what factors may have gotten in the way of positive outcomes and what improvements they would recommend. Staff were asked to share their thoughts about what positive outcomes they observed for patients receiving care at their clinics, what factors, if any, promoted the patients positive

outcomes, what factors may have gotten in the way of patients achieving positive outcomes and what improvements for depression care they would recommend to be provided at their clinic. These factors were compared across the different level of team based MHI care delivered in the three phases of clinic implementation (potential, adoption, routinized).

Analysis

Recordings were transcribed in full text from audiotapes. Transcriptions were read and reread to identify and index themes and categories that centered on particular responses to the interview guide. Each interview question response was reviewed for content and categorized in order to better understand factors that might explain the quality improvements that have been observed thus far in the MHI change in paradigm and procedures for treating mental health.

Interviews were aggregated by clinic phase for both staff and patients. Comparison themes were observed and tallied among and across potential, adoption and routinized clinics. Predominant themes were defined by of frequency of repetition by total and grouped subjects. The data relevant to each category were identified and examined using a process called 'constant comparison.' Each item was checked and compared with the established categories. New categories were added until saturation was reached. The process was inclusive to reflect as many nuances in the data as possible. Categories were further refined and reduced in number by grouping them together. Key themes and categories emerged from these qualitative groupings and analysis reporting (Barnard, 2006).

Quantitative analysis was carried out to identify significant difference in key demographic or theme variables among phased clinic groups. Pearson's chi-squared test, Fischer's Exact Tests, and analysis of variance (ANOVA) were used to test this level of difference. Linear trends in proportions across phases of MHI implementation were assessed using a *p*-for-trend chi-square analysis in order to further test that certain outcomes increased overtime by duration of commitment to MHI based on the following:

Hypotheses

1. The longer the clinic has been committed to MHI, the more patients are engaged in multiple treatment options.
2. The longer the clinic has been committed to MHI, the better the outcomes for patients reported by patients and observed by staff.
3. The longer the clinic has been committed to MHI, the more patients perceive coordinated team interactions.

Results

Clinic Characteristics

Each clinic phased group had both Internal Medicine and Family Practice providers who were treating patients with depression as identified in the depression registry. Clinic volume of patients visits and payor mix varied across the three phased groups by number of practicing providers (Table 1.1).

Staff Characteristics

Fifty-five staff subjects were recruited by their (Regional Nurse Consultants (RNC) and volunteered to participate. Fifty staff members consented and completed the

Table 1.1: Clinic, Staff and Patient Characteristics

	Total	Potential	Adoption	Routinized	<i>p</i>
Clinic	<i>N</i> = 9	<i>N</i> = 3	<i>N</i> = 3	<i>N</i> = 3	
Doctors					
Internal Medicine	12	3	4	5	
Family Practice	40	7	13	20	
Payor (%)					
Commercial	57.6%	52.6%	75%	45%	
Medicare	25.4%	31.6%	5%	40%	
Medicaid	6.8%	5.3%	5%	10%	
Uninsured	10.2%	10.5%	15%	5%	
Health Visit Claims (12 mos)					
Total	109,231	12,867	30,079	66,285	.0025**
Mental Health (%)	27,921 (.25)	7,213 (.56)	9,532 (.32)	11,176 (.17)	
Staff	<i>N</i> = 50	<i>N</i> = 15	<i>N</i> = 17	<i>N</i> = 18	
Gender (% female)	.60	.67	.59	.56	.8042
Avg. Years at Clinic	8.35 (6.3)	8.7 (8.1)	6.5 (4.3)	9.8 (6.2)	.3048
Patient	<i>N</i> = 59	<i>N</i> = 19	<i>N</i> = 20	<i>N</i> = 20	
Gender (% female)	.70	.76	.65	.75	.7839
Years Treated at Clinic	7.3	7.6	5.7	8.6	.2602
Years with Primary Care Provider	7.8	7.8	5.5	10	.0961
Years Managing Depression	11	9.8	9.1	14	.2679
Discussed External Stress & Mental Health Risk	.73	.68	.75	.75	.8684
Discussed Suicide	.42	.53	.35	.40	.5194
Hopeful for Recovery	.80	.79	.85	.75	.7312
Discussed Diabetes	.25	.16	.20	.40	.3869
Discussed Chronic Pain	.37	.16	.45	.50	.0594
With Chronic Pain Claim in Depression Registry	.75	.52	.80	.90	.0219*
Discussed Obesity	.22	.06	.45	.15	.0073**
Discussed Family Member with Mental Health Condition	.56	.53	.45	.70	.2645
Discussed Family Member with Physical Health Condition	.32	.11	.45	.40	.0602

ANOVA and Pearson's chi-squared test: ** $p < .01$ * $p < .05$

interview. Eighty-eight percent of the physician staff were male, while support staff were predominantly female. Care managers and clinic managers were predominantly female and mental health specialists were predominantly male. Over all clinic groups PCPs had worked an average of 8.2 years at their clinics (Table 1.1).

Patient Characteristics

Fifty-nine of the 83 patients selected followed through completing consented interviews corresponding to the patients' preference (58 by phone and 2 in person, 1 at home and 1 at the research office). The length of interviews ranged from 24 minutes to 63 minutes. Seventy percent of the sample were female. There were no significant gender differences between the clinic groups (Table 1). The average age of patient population was 51 years across the three phased clinic groups. The youngest informant was 22 years and the oldest was 84 years.

Patients across the clinic groups did not differ in their reported years of attending a clinic and PCP longevity (Table 1.1). Patients appeared to stay within their clinic group of doctors. Even when dissatisfied they switched to another doctor in the same clinic. Some patients also reported traveling long distances to continue their relationship with their doctors and clinics.

Volumes of claims for mental health diagnoses over 12 months were significantly lower in clinics that had routinized MHI compared to potential and adoption claims. Patients treated effectively in MHI clinics are utilizing fewer services for mental health in primary care. The patient population across all clinic groups did not differ in reported duration of years managing depression, discussing suicide during their interview and experiencing significant external stress and mental health risk (Table 1.1). During their

interviews, 39% of all patients discussed the topic of suicide. Patients described suicide in the context of having experienced thoughts in the past and being glad not to have them now. Most mentioned that these thoughts were something that alerted them or their families to seek help from their doctors and that something was “very wrong.” All patients confirmed that they had discussed suicidal thoughts with their doctors. Eighty percent of the patients reported feeling hopeful that they could get well and stay well.

Sixty-six percent of the patients discussed managing more than one health condition in addition to depression. Multiple conditions commonly discussed included diabetes, pain, obesity and others. There were significant differences across clinic groups in the rate of discussing obesity.

During their interviews, patients in potential clinics underreported chronic pain as compared to pain diagnoses documented in the depression registry. Chronic pain symptoms are commonly treated in primary care. Physicians are less comfortable treating and discussing chronic pain with their patients without training and specialist support (O’Rourke et al., 2007). Patients treated in the adoption and routine clinics had significantly higher rates of pain comorbidity with their depression. Patients across clinic groups did not differ markedly in percent of reported mental and physical health conditions being managed by their family members. Fifty-six percent of all patients discussed family members who were also managing mental health conditions.

Combined Additional Treatment Support

During the interview when discussing care received, the interviewer noted when patients reported additional treatment support and interventions in addition to talking to their PCP. Additional support interventions included currently taking medication,

medication changes, and contact with a nursing care manager at their clinic, contact with a mental health specialist at their clinic, or a mental health specialist in the community. Patients were also asked what, if any, support they needed at home when they left their clinic. The number of emergency room (ER) visits by the patient in the past 12 months was captured from the registry. Patients treated in the potential clinics also had a significantly higher rate of ER utilization over the last 12 months ($p < .0395$) (Table 1.2).

The longer the clinics remain committed to MHI the more patients have access to and are engaged in multiple treatment options for mental health. Patients treated in MHI adoption and routine clinics reported significantly more care manager and mental health support ($p < .01$) in addition to medication and PCP interventions than patients treated in potential clinics. All patients reported high rates of medication intervention. Overall (.85), patient's reported currently taking their medication and overall (.82) had experienced some medication change or trial during their treatment (Table 1.2).

Table 1.2 Percent of Patients Reporting Combined Treatment Support

	Total <i>N</i> = 59	Potential <i>N</i> = 19	Adoption <i>N</i> = 20	Routinized <i>N</i> = 20	<i>p</i>	<i>p</i>-trend
Contact with Care Manager	.24	0	.25	.45	.0041**	.001**
Contact with Onsite MHI Provider	.29	0	.35	.50	.0021**	.0006*
Contact with Offsite Mental Health Provider	.42	.53	.35	.40	.5194	.6049
Currently Taking Medication	.85	.84	.75	.95	.2115	.3376
Discussed Support Needed after Leaving Clinic	.49	.42	.65	.40	.2168	.8749
ER Visits in Last 12 Months Recorded in Depression Registry	.09	.21	0	.05	.0395*	.0761

Pearson's chi-squared test and p for trend chi square ** $p < 0.01$ * $p < 0.05$

Patient Self-Reported Postive Outcomes

After patient subjects were asked how long they have been receiving care from their doctor at the identified clinic and for how long had they been managing depression in their life, they were then asked, “What are the positive outcomes, if any, for you or your family, when you receive care for your depression and mental health concerns from your doctor in your clinic?” Each subject’s responses were recorded, categorized, grouped and tallied.

Three overall positive outcome theme categories emerged from the tallied patient responses:

- Functioning better in life (Table 1.3)
- A personal trusting relationship was established (Table 1.4)
- Treatment worked (Table 1.5).

A greater number of positive outcomes were reported by patients receiving care for depression and mental health at clinics with a longer commitment to MHI. For two outcomes (overall functioning better in life and established personal relationship), patient responses did increase with clinic phase although not statistically significant. Among the dimensions of “overall functioning better in life,” patients in routine clinics reported significantly over time being able to ‘think more clearly’ ($p < .0134$) (Table 1.3).

However, for the third outcome, ‘treatment worked’ patients in routine clinics responded significantly more positively ($p < .0209$) The longer the clinic’s commitment to MHI, the more effective the patients’ treatment ($p < .0135$) (Table 1.5). In addition to reporting an established relationship and improved cognitive functioning patients in routinized clinics reported that that treatment was effective.

Table 1.3 Improved Functioning in Life: Patient Positive Outcomes Reported by Patients and Staff

Patient Reported Positive Outcomes	Total N = 59	Potential N = 19	Adoption N = 20	Routinized N = 20	p	p-trend
Improved Overall Functioning in Life	.92	.89	.85	100	.2173	.2306
Improved Overall Functioning Dimension: "Thinking Clearly"	.31	.16	.25	.50	.0547	.0134*
Staff Reported Patient Outcomes	N = 50	N = 15	N = 17	N = 18		
Patients Functioning Better in Life	.66	.60	.52	.83	.1393	.1385
Patients Functioning Better Dimension: Patients More Productive at Home or Work	.40	.33	.18	.67	.0103*	.0388*

Pearson's chi-squared test and *p* for trend chi square **p* < .05

Table 1.4 Established Personal Trusting Relationship: Patient Positive Outcomes Reported by Patients and Staff

Patient Reported Positive Outcomes	Total N = 59	Potential N = 19	Adoption N = 20	Routinized N = 20	p	p-trend
Established a Personal Trusting Relationship with provider	.55	.37	.65	.65	.1260	.0792
Staff Reported Patient Outcomes	N = 50	N = 15	N = 17	N = 18		
Patients Established a Relationship of Personal Trust with Provider	.86	.73	.88	.94	.2245	.0853

Pearson's chi-squared test and *p* for trend chi square

Table 1.5 Treatment Effectiveness and Access: Patient Postive Outcomes Reported by Patients and Staff

Patient Reported Positive Outcomes	Total N = 59	Potential N = 19	Adoption N = 20	Routinized N = 20	p	p-trend
Treatment Works Effectively	.66	.53	.55	.90	.0209*	.0130*
Treatment Works Dimension: Connected Phsyical and Mental Symptoms & Team Worked Together "On the Same Page"	.34	.16	.25	.60	.0084**	.0035**
Location was Convienent	.20	.21	.25	.15	.7312	.6332
Staff Reported Patient Outcomes	N = 50	N = 15	N = 17	N = 18		
Patients Receive Treatment/Access	.66	.73	.71	.55	.4981	.2722
Location is Convienent	.26	.33	.35	.11	.1698	.0948
Pearson's chi-squared test and p for trend chi square **p < 0.01 *p < 0.05						

Patient Responses

- "He is really good at making medication adjustments and finding one that works for me"
- "They helped me work through what was making my depression worse and gave me solutions"
- "He gave me different therapy options, not just meds"
- "He connected symptoms to problems and solved it"
- "We dealt with underlying health concerns, not just depression"
- "He treated my whole person all my symptoms, history, and we made a plan together"
- "We all worked together on the same page to help me get the best outcome"

Staff Reported Observations of Positive Outcomes for Patients

Staff were also asked about their observations of the positive outcomes for patients receiving care at their clinic. “What do you think, if any, are the positive outcomes for your patients when they can receive care for their mental and physical health from their doctor at your clinic?” Each subject’s response was recorded, categorized, grouped and tallied.

Three overall positive outcome theme categories emerged from the tallied staff responses:

- Patients are functioning better in their lives and they are being more productive at home and work (Table 1.3)
- Patients experienced a personal trusting relationship (Table 1.4)
- Patients received treatment ‘get treated’ (Table 1.5).

For two outcomes, (1) experiencing a personal relationship (Table 1.4) and (2) receiving treatment (Table 1.5), staff responses did not differ across clinic phases. Staff in routinized clinics reported access to treatment less (.55) than adoption and potential clinics. ‘Access to treatment’ is perceived by them an expected MHI protocol and less as a key outcome. However, for the third outcome, staff providing care in routine clinics reported that patients were functioning better in their lives. For functioning better, staff providing care in committed MHI clinics reported that the components most responsible for “improved function” included the perceptions that patients were more productive and better able to perform at home and at work ($p < .01$, trend $p < .0388$) (Table 1.3).

Staff Responses

- “Their mood is better, crying less and they just look happier”;
- “They enjoy doing things again”;
- “They start to communicate with other people and have appropriate interactions with their family”;
- “They are sleeping better, symptoms are improved and they are not suicidal”;
- “They are more productive at home and perform better at work”

Both patients and staff reported functioning better in life (Table 1.3) personal relationships (Table 1.4), and treatment (Table 1.5) as positive outcome themes when depression and other mental health concerns were cared for in primary care. Patients reported treatment outcomes in terms of “*treatment working*” and staff reported treatment in terms of patients having access and actually “*getting treated*” (Table 1.5). The overall functioning better in life outcome for patients included specific examples of cognitive improvements (self-attitudes and beliefs, negative thinking, focus and processing of information, ‘level headed’) whereas staff examples included improved productivity at work or home. Staff interview responses did not specifically cite thinking or cognitive improvement as an outcome observed for patients. Staff and patients did not differ in patients experiencing a personal trusting relationship (Table 1.4). Neither staff nor patients reported convenience as a positive outcome for patients (Table 1.5).

Team Themes Across Phased Group Patient and Staff Interviews

Overall patient and staff subject responses during their interview that included a team theme were counted and tallied across clinic phases (potential, adoption, routinized) (Table 1.6). Team themes describing joint problem solving and shared decision-making

Table 1.6 Differences in Patient and Staff Overall Interview Team Theme Responses

	Total	Potential	Adoption	Routinized	<i>p</i>	<i>p</i>-trend
Patient Responses	<i>N</i> = 59	<i>N</i> = 19	<i>N</i> = 20	<i>N</i> = 20		
Discussed Linked Team Interactions	.49	.06	.45	.80	.0001**	.0001**
Staff Responses	<i>N</i> = 50	<i>N</i> = 15	<i>N</i> = 17	<i>N</i> = 18		
Discussed Linked Team Interactions	.84	.73	.88	.90	0.4436	.2377

Pearson's chi-squared test and *p* for trend chi square ***p* < .001

related to a common goal with multiple players linked together were noted. The longer the clinic has been committed to MHI the more patients perceive coordinated team interactions ($p < .0001$). Overall patients receiving treatment in the routine clinics discussed team themes during their interview significantly more frequently ($p < .001$). Staff (.84) in all phased clinic groups discussed team themes more frequently than did patients (.49) ($p < .0001$).

Working in a health care team is a common expectation for clinic staff. Patients expect to work with their doctor and may not perceive their doctor and his or her staff as a team. As clinics became more routinized the team themes were more dominant across both staff and patients. Patients discussed relationships with different team members in the primary care clinic filling different needs for them and complementing each other.

Patient Responses

- “I like being able to see another doctor when my doctor isn’t available and how they can both get my information and work together”
- “I know them, they know me, the doctor listened to what my care manager said and we worked hand in hand together for best outcome”

- “Working together, they set up the team for me, it took all three of them they worked together to reach my goal, they are all here”
- “This experience has opened my eyes as to how important the combination of medicine, doctors and nurses are in I helping you understand your feelings and your thoughts but in my case also helping you deal with it which is important if you are going to get better”
- “My doctor and his nurse are good listeners, they don’t discount what I say, I feel part of the decision and then they hook me up with other good doctor listeners”

Staff Responses

- “We are all on the same page communicate with each other and we are all a part of the process.”
- “I respect them, they respect me we are on the same level, it’s a team effort all on board and we put our brains together.”
- “My MA and I are a team. I have them keep their eye out for depression and I know what I am supposed to do.”
- “We have coordinated links with mental health colleagues to work with”
- “It’s a team approach mental health and PCP are not competing in any way we have more eyes tracking.”
- “We work together with the front desk and see the patient all the way through.”
- “We put our heads together and clarify our thinking of what is going on and how to work with it. It’s a deeper level of care.”

Discussion

The purpose of this study was to understand how the MHI innovation impacts the culture of mental health care and how it contributes to improved quality and cost outcomes, specifically a reduction in unnecessary emergency room utilization for depressed patients. A consistent contextual theme across all respondents was the collaborative effort of team members working together with patients to help them with their mental and physical health needs. Therefore patient's perception of the delivery system is as the system intends. When specifically asked about patient outcomes the team theme emerged again with routine MHI clinics showing higher success rate on all dimensions of better outcomes to more connected team relationships. This investigation confirms the positive value of effective team relationships as a key social-cultural-relational factor contributing to the success of the MHI delivery innovation. It calls attention to the importance of effective team relationships in helping patients achieve positive health outcomes.

Patients and staff across all clinic phases in this study reported long term established relationships with their doctors and their clinics. MHI has added complementary team roles to this established relationship and normalized mental health as part of overall health. This normalized process is a combined effort among all team members and is perceived by patients as a significant positive outcome: "*treatment works.*" The longer the commitment to MHI the more patients received team based care.

Qualitative methods highlight health delivery experiences that cannot be detected in quantitative data sets (Goodson & Vassar, 2012). This study found that patients treated in clinics where MHI had become routinized over time experienced more

connected team contact and positive outcomes. The doctors in MHI-routinized clinics are able to enhance their established relationship by addressing and acknowledging the social context of their patients' health. They also have more available and "trusted" staff on their team to talk to should he or she need to call upon them. The longer the clinics were committed to MHI, the more dominant the team themes were across both staff and patient interviews. Patients discussed relationships with different team members in the primary care clinic, which filled different treatment needs for them.

Both staff and patients cite personal relationships as a positive outcome when receiving care for depression and other mental health concerns at a primary care clinic. These personal relationships are sealed by history, familiar environment, and time-tried support. In the clinics that have established team roles over time, the bond between the primary care doctor and their patients appears to extend to their support staff, care managers and mental health specialists.

"I know them, I like them, they know me and what I like," "my doctor would not send me to someone that he did not know" (Patient in Routinized MHI Clinic).

As discussed earlier, depressed patients are often perceived as 'difficult to treat' due to their complex multiple conditions which require both extra time and emotional energy. Sixty-six percent of all patients interviewed were managing more than one medical condition. Although patients agreed that dealing with depression is difficult, they were also hopeful that they could get well and stay well. In routinized MHI clinics, the complex time and emotional energy involved in dealing with depression is spread across or shared by a team who are skilled and prepared to tackle the mental and social stress that often accompanies chronic disease. Patients in routinized MHI clinics

experienced improved functioning and cognition. Staff in routinized clinics also perceived patients as being more productive at home and work. It is likely that being able to deal effectively with their depression, “treatment works” and “thinking clearly” gives them the energy to engage with the team and their family and address other health challenges related to multiple conditions, such as diabetes and chronic pain. Conversely, unrecognized and untreated depression can discourage patients from adhering to chronic condition treatment plans (Katon et al., 2010; Rost et al.1998; Wells et al., 2000).

This combined and expanded team effort may account for the additional and significant outcome of “treatment works” in the routine clinics. When a team has been organized and embedded within a familiar clinic, trusting relationships are expanded. Further study is needed to define the interacting team factors and organized processes that are occurring in MHI team-based clinics that promote or deter positive outcomes. How the team works together, how decisions are made, and what is needed to support the operations of these team exchanges without additional costs.

Current discourse in primary care practice health reform foresees that the solo primary care doctor will need to be augmented by team-based care (Bodenhiemer, 2011; Okie, 2012; Saba et al., 2012). Today’s patients will need to become accustomed to sharing their doctor through electronic communication and among teams. This study demonstrates that maintaining the trusting longevity of the PCP patient relationship is a key factor in patients achieving positive outcomes. This trust is not replaced but expanded along the social network of the team. This expanded support network potentiates positive outcome results. Teams have expanded support to engage in diverse relationships, technologies and skills that the solo PCP would not otherwise be able to

provide to their patient. The combination of social trust, longevity, connecting mind and body and complementary roles reinforces a powerful message of reducing uncertainty and isolation for all team members. An MHI physician describes this message in the following statement “I respect them, they respect me we are on the same level, it’s a team effort all on board and we put our brains together.”

The diversity of the team members involved in the health decision will account for the improved outcome (McGuire, 2006). If the PCP must be replaced, patients know and trust other team members. Patients in routinized MHI had access to diverse multiple members of a coordinated team who offered unique skills to help them get well. With a larger team, patients have a broader, trusted social support network available to them, beyond the durable and trusting relationship with their doctor. As team care becomes more experienced with MHI, PCPs may be more empowered to confidently address and connect mental and physical health concerns with their patients. With increased experience, PCPs develop trusted, available support to help them offer to the patient a more advanced level of treatment when they have reached their highest skill.

Relationships with different team members in primary care can fill different needs for patients, complement each other, and make people realize aspects of their own potential. *“It took all three of you, the whole group to help me, all of them worked together to reach my goal, when I was there every aspect, someone was available to me”* (Patient in Routinized MHI Clinic).

Innovations and new ideas are spread through these relational networks. This study demonstrates that these connected team relationships matter to both patients and staff, contributing to perceived positive outcomes for patients. They share longevity,

trust, openness and confidence. MHI has potentially enabled team members to approach formerly concealed mental illness openly in new, innovative ways, and treat mind and body together.

Conclusion

The current health reform discourse lacks qualitative evidence that documents the value of team interactions between patients, their doctors and clinic staff. Although there is wide agreement that the social context of the health exchange is important for achieving positive outcomes, it is currently not accounted for in the value equation for improving the health of our populations. These social factors have become increasingly critical to creating a culture of medical care that achieves positive health outcomes, reduces costs and mortality.

For any medical condition, no single factor or outcome captures the multifaceted results of care (Porter, 2010). It is the combined effort of all members of a coordinated team that contribute to what is achieved. The combined reported outcomes of functioning in life better, experiencing a trusting personal relationship, access to treatment and treatment working, all contribute to wellness as perceived by patients and staff.

Further study is needed to explore the different perceptions of treatment outcomes expressed by patients and staff. Patients in MHI clinics preferred care administered by multiple persons working together with their doctor to address their mental physical and family health issues. This study shows that patients value a trusting relationship with their doctor who can get to the root of their problem by treating mind and body together and who can work together with a coordinated treatment team.

In summary, when patients can receive effective care at their familiar clinic setting for their mental and physical health, coordinated between their doctor and their broader health care team, their overall functioning in their life is improved and sustained. One patient receiving care in an MHI clinic gives the following statement that best recaps the results of this study. “This experience has opened my eyes as to how important the combination of medicine, doctors and nurses are in helping you understand your feelings and your thoughts but in my case also helping you deal with the diabetes and depression, which is important if you are going to get better.”

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CHAPTER 2

THE IMPACT OF TEAM CARE ON PATIENTS AND STAFF

Abstract

This article examines the team facilitating factors that promote positive outcomes for patients when mental health is integrated as a routine part of primary care. Mental Health Integration (MHI) introduces a new institution in the culture of mental health care because it approaches mental illness by integrating mind and body and introduces a team approach that attends to both the patients and the staff experiences. Prior research showed that staff providing care in MHI reported that patients experienced improved productivity in daily functions and access to mental health care (Reiss-Brennan, 2013).

Using qualitative techniques, this study reports on staff factors associated with MHI that promote positive health outcomes for patients. Fifty-nine patients and 50 staff were interviewed to evaluate the impact of mental health integration on depression. Results showed that staff providing care in MHI observed improved patient outcomes as a result of patients' self-confidence ($p < .001$) and access to an expanded trusted team ($p < .003$). Staff in MHI clinics were more comfortable addressing mental health ($p < .01$) and had time to spend with patients ($p < .05$). They defined MHI as an organized expected team process that empowered them to provide better care to patients ($p < .001$). As clinics became more committed to MHI, staff viewed mental health as a

normalized part of their practice ($p < .01$). As MHI became more routine in clinics, staff more frequently described standard practice steps (screening, team management and follow up) for the treatment of depression ($p < .01$). Staff reported that the quality of the care they provided for patients had improved as a result of MHI ($p < .01$). Normalizing mental health as an organized team process within the context of primary care offers promising results for improving outcomes for patients with chronic disease.

Introduction

The purpose of this study is to identify the key team factors reported by staff that promote improved cost, quality and patient outcomes for depression as a result of implementing Mental Health Integration (MHI) in the primary care setting (Reiss-Brennan, 2010, 2013).

MHI is a team-based delivery approach that integrates recognition, screening, treatment, and management of mental health in the routine medical encounter. It has been adopted and sustained across diverse (Family Medicine, Pediatrics and Internal Medicine) primary care practice settings for a span of 12 years. The term “integration” is intended to signify the coordination of different team roles and processes into a functioning, organized whole. Relationships with different team members complement one another to fill different needs of patients. Such integration corrects the traditional Cartesian mind-body separation within the context of a functioning team. MHI has changed the culture of mental health care by providing psychological safety and equity for problems that are both taboo and time consuming in a busy medical practice. These problems, when normalized through trusting team relationships, improve the quality of the health exchange and reduce unnecessary costs (Reiss-Brenan, 2010). Effective MHI

treatment for patients includes connecting physical and mental health concerns, and staff working together with patients as being ‘on the same page’ (Reiss-Brennan, 2013).

It is well established that coordinated multidisciplinary teams and collaborative care deliver improved outcomes for patients (Ghorab & Bodenheimer, 2012; Katon et al., 2010; Mukamel, 2005). This article takes a sociocultural approach inspired by MHI to facilitate understanding of the structural and cultural factors that promote effective team care for improving mental health outcomes for patients. Staff and patients working together as a team has become increasingly critical to creating a culture of cooperative medical care that achieves positive health outcomes and reduces costs and mortality (Crespo & Shrewsberry, 2007; Gallo et al., 2007; Gensichen et al., 2009; Grumbach & Bodenheimer, 2004; Khan et al., 2008; Kimet et al., 2010; Kolko et al., 2011; Liu et al., 2003; Reiss-Brennan et al., 2010; Rost et al., 2005). Nevertheless, the majority of patients do not have access to doctors who are practicing within a medical group or institution that has realigned resources to support the operations of coordinated team-based care. Many doctors are juggling competing priorities for chronic disease management, prevention guidelines and regulatory incentives (Baron et al., 2010; Ostbye et al., 2005).

Successful multidisciplinary teams require effective leadership and practice norms that promote a culture of shared accountability and reliable trust (Ghorab & Bodenheimer 2012; Margolius & Bodenheimer 2010; Markova et al., 2012; Roth, 2012; Tapp et al., 2012; Yarnall et al., 2003). In the task-oriented siloes of current institutions delivering health care, teams can create ambiguous human exchange that can be inefficient and costly. More importantly team relationships are not measured or reimbursed as part of

the health exchange. They are simply considered “part of the business” of delivering health care with no value linked to patient outcomes. Therefore these relationships can incur high transaction costs for the delivery institution (North, 2000).

These sometimes substantial costs remain hidden, buried in the social challenges of primary care that involve human personalities, miscommunications, transfer of complex information, time constraints, and staff variability in coping with practice stress. Team members linked together in institutions where members must monitor one another, and how they trust each other, determine their ability to cooperate and get things done (Olstrom, 1990).

Health teams require institutional investment, time and training to build and sustain their function. Team members must have roles authorized through broadly accepted protocols, and be trained to perform them competently. Clinicians must have confidence that all team members are doing a good job in order to feel assured that they have time for more complex tasks (Bodenheimer, 2011). Yet when patients can receive effective team-based care for their mental and physical health from their trusted doctor at their familiar clinic setting, their overall functioning in their life is improved and sustained (Reiss-Brennan, 2013). While these benefits of team care are well recognized, little research has been done to understand how patients being treated in primary care, and the staff providing the care, experience the new team-based paradigm and their role in bringing about positive outcomes (Saba et al., 2012).

The primary aims of this study are to identify the key team factors that promote improved outcomes for depressed patients in the MHI clinics. The focus here is on examining how, through staff perceptions and with qualitative and quantitative data, MHI

(a) facilitates improved patient outcomes, (b) provides effective treatment, (c) engages patients actively in their own care and recovery, and (d) furthers a team approach among staff. Staff perspectives were gathered to explore whether the intended goals of MHI process were in line with patient outcomes. One of the key factors of MHI is the diffusion of the team care process over time. The longitudinal impact of this process on factors facilitating practice changes that promote positive outcomes will be examined. Subsequent articles will address the patient's perspective of their care under team treatment and their role in achieving their outcomes.

Background

Appropriate care for patients with mental illness and coordinated care management for chronic disease can avoid ambulatory sensitive admissions¹ (Millman, 1993; Saba et al., 2008) and improves both medical and psychosocial outcomes in depressed patients (Katon et al., 2010). Collaborative team approaches and treatment guidelines for depression have been shown to be effective, yet remain difficult to adopt and implement in real-world practice (Gilbody et al., 2006; Katon et al., 2010; Lorig et al., 2001). Although primary care providers (PCPs) provide the majority of care for patients with mental health conditions, social stigma, lack of time, lack of resources, and inequitable reimbursement each add to the difficulty for health care delivery systems to proactively implement and sustain effective team interventions. The result is a major gap in the quality of care that patients and their families *should* receive versus the care they

¹ Ambulatory sensitive admissions are avoidable admissions when patients receive appropriate primary care.

actually receive within the health care system (Cunningham, 2009; Roeloffs, 2003; Rost et al., 2005; Schoenbaum et al., 2001). Reimbursement for mental health care is impeded by the historical and prevailing Cartesian dualism between primary medical care and behavioral health (Frank, 2001; Locke & Farquhar, 2007). Although recent 2008 Federal Parity legislation supports the equal fiscal accountability for both physical and mental health, institutions are slow to comply with these laws (Kershaw, 2010).

Over the last 12 years, Intermountain Healthcare (IH) has developed, implemented and sustained MHI as a comprehensive team-based innovation for caring for the mental and physical health of patients and their families. The MHI innovation was incorporated within IH's long-standing clinical integration delivery structure, which organizes and deploys best practice care process models (CPM) through accountable provider teams. These teams are supported by institutional structures that have created delivery customs, such as time for planning and building infrastructure, and measuring and communicating improvements. These performance "habits" are consistently observed among integrated delivery institutions that produce high value care at lower costs to their community (Bohmer, 2011).

"MHI is defined as a standardized clinical and operational team relational process that incorporates mental health as a complementary component of wellness and healing for life" (IH, 2007). The MHI team CPM has disseminated a new social message of normalizing mental health as a routine part of everyday health exchanges between patients and their doctors and among clinic staff. This message is propagated through standard protocols of the MHI CPM, which specifies an organized process to guide the

allocation and activation of each team role. Physicians are accountable for patients having awareness of informed access to the expanded team care.

In prior research, patients in MHI clinics preferred care that included multiple persons working together with their doctors to address their mental physical and family health issues (Reiss-Brennan, 2013). Patients receiving care in MHI clinics reported improved relationships with caregivers and improved overall functioning in their lives (Reiss-Brennan, 2013). Staff providing MHI care reported improved productivity outcomes for their patients (Reiss-Brennan, 2013).

The MHI team includes all of the PCP's and support staff, who are integrated with practice managers, mental health professionals, community advocates, care management and the patient and his/her family. This multidisciplinary clinical team is organized under the leadership of the clinic physician in partnership with the patient and family; each member of the team is trained in specific responsibilities that contribute to a collective whole health care plan. The physician, patient and family use comprehensive assessment tools to review the complexity and severity of their health concerns and to decide together what level of team care is needed to reach their desired outcomes. Team resources are then allocated to meet the complexity (mild, moderate, high) of the patients identified needs. Team members are trained in communication, shared decision making and documentation processes that follow standardized MHI protocols that are designed to match team resources to the complexity and severity of the patient and family's health concerns. Team communication and coordination are further facilitated by a shared electronic medical record (EMR) and clinic-based nursing care managers who follow

patients' progress. Patients have direct phone and email access to their physician and team.

Team based care such as MHI, requires a fundamental change in physicians' mindsets (Bodenheimer, 2011). Clinics often claim to have teams, but doctors provide the majority of the care and delegate tasks to support staff or hand off referrals to specialty providers. The end result of this traditional delivery model is fragmented uncoordinated care and poor health outcomes (Katon, 2010). The integration model goes far beyond *co-location* of a specialty care provider or *physician solo* care. To establish complementary roles involving the patient and family, nursing staff and specialists roles are operationalized at the clinic improving patient, physician and staff communication. Patients treated in MHI clinics also show improved satisfaction, lower costs, and better quality outcomes; 54% were less likely to use higher order ER services (Reiss-Brennan et al., 2010).

The MHI innovation has demonstrated consistent diffusion over time within a rapidly growing medical group that provided community health care for 806,761 patients and their families in 2011 in the state of Utah. Rogers (1995) defines diffusion as a social change process in which a new idea is communicated through common channels over time among members of a social system. Through this diffusion process members communicate, create and share information related to the new idea to reach a mutual understanding, a process that alters the structure and workings of the social system of health care delivery. MHI is designed to facilitate diffusion. The exchange of innovation information among peers is the heart of the diffusion process. The new process guides the social interactions of its team members. Accompanying practice norms become the

established social patterns that define the range of tolerable behaviors for the system.

Rogers further argues that opinion leaders and change agents are key members of the social system. Accordingly, the physician, nursing and operational regional local leaders were identified and trained as MHI champions for the adoption of diffusion of the new care process.

Methods

This investigation explores the perceptions of staff involved in MHI in three phases of MHI diffusion. Three phases were identified by the clinic's stage of implementation commitment to MHI: (1) potential, (2) adoption and (3) routinized (Rogers, 1995). *Potential* clinic staff are trained in the MHI CPM, and assess current resources and readiness for MHI adoption, but do not have an MHI operational plan. Therefore potential clinics have not yet committed to implementing MHI. *Adoption* clinics have implemented MHI for at least 2 years. During this time they have engaged leadership champions, recruited and hired team staff, redesigned roles and workflow, and offered MHI care to their patients. Adoption clinics request support from regional leaders to help resolve barriers and resistance to change. They have operational commitment to pursue MHI goals. *Routinized* clinics have habituated the innovation and provide great access to an integrated health/medical home team with coordinated care for depression. These clinics have continuously-established administrative leadership and clinical teams; MHI workflows are considered a clinic norm. Routinized clinics have fully implemented and sustained the five key MHI elements—leadership, team-based care, information technology, partnering with community stakeholders, and financing for over five years. Clinic implementation of these key elements are monitored and

reinforced by local leaders (physician, nurses and managers) who promote their teams progress towards the routinized phase of implementation.

Design

A 2-year multiclinic comparative case study of nine primary care clinics was conducted within Intermountain Healthcare in Salt Lake City, Utah. Clinics used in prior research (Reiss-Brennan et al. 2010) were selected based on the phase of implementation: three routinized; three adoption; and three potential clinics. Across each of the three groups, clinics were matched for 12 months (2010) by patient visit volumes, numbers and types of provider, and payor mix (% Commercial, % Medicaid, % Medicare %, Uninsured/Charity). Twelve-month visit volumes were further analyzed for the number of mental health related visit claims. The claims analysis utilized ICD-9 mental health related codes documented in the depression registry. All patients treated at the clinics have access to physical and mental health care regardless of their ability to pay.

Sampling

Staff Recruitment

To understand the impact of MHI on staff, a purposive sample of 50 clinic staff was drawn from the three matched-clinic groups based on their team role. The clinics employed staff informants for each of the phased groups, including physicians, clinic managers, nurse care managers, mental health specialists and medical support staff for each of the phased groups.

Patient Recruitment

To obtain patients views, selection criteria included a random sample of 59 adult patients over 18 years who received care for depression from their primary care physician (PCP) any time in the previous 12 months. Twenty patients were chosen from each of the three phased clinic groups: potential, adoption and routinized. The sample was stratified by those who received treatment from their PCP only, those who had additional contact from either a care manager, mental health specialist, or both. Criteria for stratification included (a) new depression diagnosis in registry, (b) at least one primary care visit, (c) at least one MHI visit with (Care Manager or Mental Health Specialist), and (d) at least one prescription order or refill.

Randomly selected patient informants were approached by their nursing care managers and asked if they would voluntarily participate in the study. The care managers were trained to review and describe the purpose of the study, to determine the patient's willingness to participate and complete the necessary consent documentation. Patients identified to be cognitively impaired or having intent to harm themselves or others were excluded. Patients who were identified by the care manager or primary care provider to be currently enrolled in a patient /therapist relationship for their care were excluded to prevent potential disruptions to an ongoing therapeutic relationship.

Data Collection

Primary data were collected from interviews conducted face-to-face and by telephone. Secondary data were extracted from the administrative databases.

The semistructured interview guide (Appendix B) included open-ended questions that probed respondents' perceptions of their experience of providing care for depression

or other mental health concerns in the primary care setting. Staff were asked to consider what factors, if any, promoted the perceived positive outcomes for patients and what factors may have gotten in the way of positive outcomes. They were asked, “When depression comes up in the patients visit with their doctor, what are the steps that follow to determine what to do?” Staff respondents were also specifically asked to define their understanding of MHI and how it may or may not have changed the care they provide at their clinic. These factors were compared across the different levels of team-based MHI care delivered in the three phases of clinic implementation (potential, adoption, routinized).

Analysis

Recordings were transcribed in full text from audiotapes. Transcriptions were read and reread to identify and index themes and categories that centered on particular responses to the interview guide. Each interview question response was reviewed for content and categorized in order to better understand factors that might explain the quality improvements that have been observed thus far in the MHI change in paradigm and procedures for treating mental health.

Interviews were aggregated by clinic phase for both staff and patients. Comparison themes were observed and tallied among and across potential, adoption and routinized clinics. Predominant themes were defined by frequency of repetition by total and grouped subjects. The data relevant to each category were identified and examined using a process called *constant comparison*. Each item was checked and compared with the established categories. New categories were added until saturation was reached. The process was inclusive to reflect as many nuances in the data as possible. Categories were

further refined and reduced in number by grouping them together. Key themes and categories emerged from these qualitative groupings and analysis reporting (Barnard, 2006).

Quantitative analysis was carried out to identify significant difference in key demographic or theme variables among clinic groups. Pearson's chi-squared test and analysis of variance (ANOVA) were used to test this level of difference. Linear trends in proportions across phases of MHI implementation were assessed using a *p*-for-trend chi-square analysis in order to further test that certain outcomes increased overtime by duration of commitment to MHI based on the following:

Hypotheses

1. The longer the clinic is committed to MHI, the more frequently staff report: (a) patient self-confidence, (b) staff comfort with mental, (c) spending time with patients, (d) using team and tool resources.
2. The longer the staff provided care within the context of an MHI team, the more they: (a) follow an organized process and (b) experience mental health as a normalized part of their practice.
3. The longer the clinic is committed to MHI, the more staff report improved (a) ability to provide quality care and (b) knowledge of other team member roles.
4. The longer the staff provides MHI the less they perceive stigma as a factor deterring positive patient outcomes.

Results

Clinic Characteristics

Each clinic group had both Internal Medicine and Family Practice providers who treated patients with depression as identified in the depression registry. Clinic volume of patients' visits and payor mix varied across the three groups by number of practicing providers (Appendix A).

Staff Characteristics

Fifty-five staff subjects who were recruited by their (Regional Nurse Consultants (RNC) and volunteered to participate. Fifty staff members consented and completed the interview. Eighty-eight percent of the physician staff were male, while support staff were predominantly female. Care managers and clinic managers were predominantly female and mental health specialists were predominantly male. Over all clinic groups, PCPs had worked an average of 8.2 years at their clinics (Appendix A).

Patient Characteristics

Fifty-nine of the 83 patients selected followed through completing consented interviews corresponding to the patients preference (58 by phone and 2 in person, 1 at home and 1 at the research office). The length of interviews ranged from 24 to 63 minutes. Forty-one patients (70%) of the sample were female. There were no significant gender differences between the clinic groups (Appendix A). The average age of patient population was 51 years across the three-phased clinic groups. The youngest patient was 22 years and the oldest was 84 years.

Patients across the clinic groups did not differ in their reported number of years of attending a clinic and PCP longevity (Appendix A). Patients appeared to stay within their clinic group of doctors. Even when dissatisfied they switched to another doctor in the same clinic. Some patients also reported traveling long distances to continue their relationship with their doctors and clinics.

Volumes of claims for mental health diagnoses over 12 months were significantly lower in clinics that had routinized MHI compared to potential and adoption claims ($p < .01$) (Appendix A). Further analysis is needed to see if patients treated effectively in MHI clinics are utilizing fewer services for mental health in primary care. The patient population across all clinic groups did not differ in the number of years reported managing depression, discussing suicide during their interview and experiencing significant external stress and mental health risk (Appendix A). During the interviews 39% of the patients discussed the topic of suicide. Patients described suicide in the context of having experienced thoughts in the past and being glad to no longer have them. Most mentioned that these thoughts were something that alerted them or their families to seek help from their doctors and that something was “very wrong.” All patients who reported suicide confirmed that they had discussed these thoughts with their doctors. Eighty percent of the patients reported feeling hopeful that they could get well and stay well. Sixty-six percent of the patients discussed managing more than one health condition in addition to depression. Multiple conditions commonly discussed included diabetes, pain, obesity and others. There were significant differences across clinic groups in the rate of discussing obesity.

Patients in potential clinics underreported chronic pain as compared to pain diagnoses documented in the depression registry ($p < .05$) (Appendix A). Chronic pain symptoms are commonly treated in primary care. Physicians are less comfortable treating and discussing chronic pain with their patients without training and specialist support (O'Rourke et al., 2007). Providers working in MHI had significantly higher rates of pain comorbidity documented with depression diagnoses. Overall patients across clinic groups did not differ in percent of reported mental and physical health conditions being managed by their family members. Fifty-six percent of the patients discussed family members who were also managing mental health conditions.

Self-Reported Staff Perceptions of Factors Promoting and Detering Outcomes for Patients

Promoting Factors

After staff subjects described what positive outcomes they observed for patients at their clinic when doctors treated their physical and mental health conditions together, they were asked to describe their perceptions of what may have promoted or deterred patients from achieving their positive outcomes. Each subject's response was recorded, categorized, grouped and tallied. Eight overall promoting theme categories emerged from the tallied staff responses: (a) patient's self-confidence (*desire to change, they are open and honest about their situations and prepared, take their meds and come to their appointments*), (b) engaging the patient (*we have good rapport and communication*), (c) staff comfort with mental health (*we look them in the eye and let them know it is ok and we can help them, it is not secretive here*), (d) staff confidence (*we are confident in our relationships, they can rely on us*), (e) having a connected staff (*we work together, they*

know we are connected), (f) available in house mental health support (*they are right here, down the hall and we know them*), (g) using the assessment tools and the team (*we are trained, we have protocols, we know how it works, when there is a problem we follow up*), (h) having time to spend (*save time, have a problem dealt with it right then*) (Table 2.1).

For the promoting factors of engaging the patient, confidence in the provider, or having a connected staff, overall staff responses did not differ across clinic phases. Both potential and routinized clinics reported engaging the patient factor more frequently. Staff providing care in adoption clinics have reported this less frequently (.53) due to the uncertainty created by the new practice changes and the lower comfort level with mental

Table 2.1 Factors Reported by Staff That Promoted or Detered Positive Outcomes for Patients

	Total	Potential	Adoption	Routinized	<i>p</i>	<i>p-trend</i>
Promoting Factors	N = 50	N = 15	N = 17	N = 18		
Patient Self Confidence	.36	.06	.23	.67	.0007**	.0002**
Engage Patient	.72	.86	.53	.78	.1188	.6520
MH Comfort	.46	.33	.35	.78	.0129*	.0088**
Staff Confidence	.72	.80	.73	.72	.8887	.8337
Connected Staff	.54	.40	.59	.61	.1297	.0648
Inhouse	.50	N/A	.80	.72	.0838	N/A
Using Tools & Teams	.50	.33	.17	.94	.00001**	.0002**
Timely Response to Patient	.36	.13	.41	.50	.0792	.0313*
Detering Factors						
Overall Factor: Disengaged	.68	.60	.82	.61	.2173	.9881
Time	.46	.53	.59	.28	.1257	.1250
No Mental Health Resources	.60	.53	.59	.66	.2956	.4331
Stigma	.38	.47	.53	.16	.1108	.0645
Inconsistent Communication	.46	.27	.65	.44	.0939	.8269

Pearson's chi-squared test and *p* for trend chi square ***p* < 0.01 **p* < 0.05

health. Overall staff confidence (.72) and engaging the patient (.72) were considered by staff to be key promoting factors of positive outcomes for patients. However staff providing care in routinized clinics with a longer commitment to MHI overtime reported four significant factors that promoted positive outcomes for patients. These facilitating factors included *patients' confidence desire to change* ($p < .001$), *staff comfort with mental health* ($p < .01$), *using teams and tools* ($p < .0001$) and *time* ($p < .05$) (Table 2.1).

Deterring Factors Reported by Staff

After staff respondents described the promoting factors, they were then asked to describe their observations of what factors may have hindered patients achieving desired outcomes. Subjects' responses were recorded, categorized, grouped and tallied. One overall deterring theme *disengaged* categories emerged from the tallied staff responses and four disengaged dimensions: (a) *time*, (b) *lack of mental health community resources*, (c) *stigma* and (d) *inconsistent communication* (Table 2.1).

Staff responses did not significantly differ across clinic phases on the six deterring factors. Adoption clinic reported the highest level of overall disengagement (.82). These clinics are in the midst of adoption *headaches* whereas potential and routinized clinics are involved in their *usual* care process.

Staff reported factors of disengagement (.68) and lack of community resources (.60) more frequently than stigma (.38) as major barriers to positive outcomes. Stigma is often a symptom or result of inadequate and inaccessible resources. Lack of community mental health resources was reported by each clinic group (Table 2.1). Although MHI has provided improved mental health access at the clinic there are significant gaps in the local community.

Although MHI has expanded team relationships, staff in adoption and routinized clinic groups perceive lack of engagement as an ongoing barrier that deters patients from achieving their outcomes. MHI processes requires consistent monitoring and reinforcement by local leaders to assure effective team care. Although not statistically significant, stigma was reported more frequently as a deterring factor in potential (.47) and adoption clinics (.53). As staff in MHI clinics became more comfortable with mental health and it became a more normal part of medical care, stigma (.16) became less prominent when they discussed barriers to care (Table 2.1).

Staff across all clinic phases agree that engaging patients is a promoting factor for patients achieving their outcomes and conversely they agree that disengaging factors (scares and costly resources, miscommunication, stigma and time) are major deterrents to those outcomes.

Staff Perceptions of the Meaning of MHI

Staff respondents were also asked to describe their understanding of what MHI is at their clinic. Four overall MHI theme categories emerged from the tallied staff responses: (a) MHI is an organized process (*we are organized for better care, several eyes tracking*), (b) MHI provides trusted available support (*we know the care manager and the therapist, and they know us*), (c) MHI empowers us to provide better care (*we identify earlier, we measure with tools, PCP is more aware, we give more personal effort, more hope and patients appreciate it*), (d) MHI is a regular expectation at our clinic (*it is what we do, a whole health approach*) (Table 2.2).

Table 2.2 Staff Self-Report on MHI Norms and Meaning

Staff Understanding of MHI	Total N = 50	Potential N = 15	Adoption N = 17	Routinized N = 18	p	p-trend
Organized Process	.50	.13	.47	.83	.0002**	.0001**
Trusted Available Support	.72	.33	.88	.88	.0032**	.0647
Empowered to Provide Better Care	.62	.26	.88	.66	.0024**	.0272*
Regular Expectation	.56	.13	.88	.61	.0001**	.010*

Pearson's chi-squared test and p for trend chi square ** $p < .01$ * $p < .05$

As clinics became more routinized staff respondents described MHI norms as more significantly established such as an organized process ($p < .001$) that empowers staff to provide better care ($p < .01$) as a regular expectation at their clinic ($p < .001$). Staff respondents in adoption and routine clinics understand MHI program as providing significantly more trusted available support ($p < .001$). Staff providing care in adoption clinics are engaged in a new focused process that has been communicated as a means to providing better care as well as an expectation of the operations of the institution. Hence, adoption clinic staff reported feeling *empowered* and *regular expectation* more frequently than potential or routinized (.88) (Table 2.2).

Self-Reported Staff Process Themes and Steps for

Treatment of Depression in Primary Care

To further understand the underlying steps of the “organized MHI process” patients and staff were asked to describe the process of how depression was addressed in the office visit and what steps were followed to determine a plan of action. Each response was recorded, categorized, grouped and tallied. Patient “process theme and step” responses will be reported and compared to staff responses in a subsequent publication.

Staff Self-Reported Observations of Process Themes and Steps

One overall process theme category and eleven process steps emerged from the tallied staff responses. The overall process theme was that *mental health was normalized*.

The process steps included (a) screening, (b) talking to the patient, (c) assessing the duration of depression, (d) determining a severity score, (e) determining a depression diagnosis, (f) recommending medication as a treatment option, (g) sorting other treatment options based on severity and coordinating the referral, (h) discussed treatment options with patient, (i) discussed evidence best practice with patient, (j) timed follow-up protocols, (k) follow up with monitoring tool (Table 2.3).

As clinics became more routinized over time, staff reported significantly more often that mental health is a normalized part of care at their clinic ($p < .01$). Staff across clinic phases did not differ on the reported process steps of talking to patient, explaining and determining depression, recommending medication and discussing treatment options with patient. As clinics became more routinized, staff reported statistically significant additional process steps of screening ($p < .05$), deterring a severity score ($p < .01$), sorting and coordinating team treatment options ($p < .01$), discussing evidence best practice ($p < .01$), timed follow-up protocols ($p < .05$) and monitoring follow up with repeated tools ($p < .05$). Staff in potential clinics did not report discussing evidence for depression care with their patients as a process step. Adoption clinics reported lower frequencies of addressing severity and duration of symptoms, and explaining depression, than potential or routinized clinics. Staff providing care in adoption clinics may have lower rates of reported process steps because they were adjusting to practice changes.

Table 2.3 Staff Reported Process Theme and Steps

Theme	Total N = 50	Potential N = 15	Adoption N = 17	Routinized N = 18	p	p-trend
Mental Health Normalized	.44	.20	.41	.72	.0164*	.0025**
Steps						
Screening	.68	.53	.59	.89	.0545	.0257*
Talk to Patient	.56	.46	.53	.72	.1763	.1319
How Long Symptoms	.42	.33	.29	.61	.0474*	.0937
Reviewed Severity Score Results	.40	.26	.23	.72	.0100*	.0062**
Explain & Determine Depression	.44	.46	.35	.50	.3716	.8110
Treatment Option Depression	.34	.26	.29	.44	.3828	.2722
Treatment Option Level Coordinated Team	.54	.26	.53	.78	.0090**	.0033**
Discuss Options with Patient	.52	.46	.41	.72	.1218	.1250
Discuss Evidence with Patient	.18	0	.11	.39	.0070**	.0033**
Follow Up Timed Planned Protocols	.36	.40	.11	.55	.0228*	.2883

Pearson's chi-squared test and p for trend chi square ** $p < .01$ * $p < .05$

Staff Documented Coded Monitoring Assessment Tool Step

Quantified data from the EMR were analyzed to further assess the staff compliance to the MHI care process protocols. The staff self-reported care process step of planned monitoring and the use of standard tools to assist in measuring outcomes were further analyzed using electronic medical record data. The coded depression tool called Physical Health Questionnaire-9 (PHQ-9) scores and visits to a mental health provider in the past 12 months were captured from the depression registry and analyzed across the three-phased clinic groups (Table 2.4).

As clinics became more committed to MHI, staff providing care administered and coded the patients' PHQ-9 score significantly more often ($p < .0001$) and coded a repeat PHQ-9 on a follow up visit significantly more often ($p < .0001$). Claims for visits to a mental health provider did not differ across the clinic phases. Physicians in all clinic phased groups were educated in the use of the depression tool and EMR coding. This

Table 2.4 Staff Compliance with MHI Assessment Coding Protocols

Staff Compliance with Process Steps	Total <i>N</i> = 50	Potential	Adoption	Routinized	<i>p</i>	<i>p</i> -trend
PHQ Coded in Depression Registry	.60	.33	.53	.89	.0001**	.0010**
Repeat PHQ Coded Registry	.36	0	.29	.72	.000049**	.0001**
Mental Health Visit in Registry	.36	.20	.35	.50	.1401	.0736

Pearson's chi-squared test and *p* for trend chi square ***p* < .01

analysis confirms that MHI staff demonstrated significant competence in administering and coding the assessment and follow up depression tool over time.

MHI Impact on Care Provided by Staff

After staff completed describing the care process steps, they were asked to describe how, if at all, treating mental and physical health together in primary care had changed the care that was provided for patients in their clinic group. Staff responses were recorded, categorized, grouped and tallied. Nine overall integrated change themes emerged from the staff responses. Staff perceived care delivery changes included (a) awareness (the PCP is more aware and do more to help patients), (b) valuable tools (we now have and use valuable tools to identify and treat), (c) better quality (we provide overall better quality to our patients), (d) knowledge of team roles (know their role and do their job, use my skills, understand the plan with everyone helping everyone), (e) timely (it is timely for the patient we take care of things right then and there), (f) expanded team (we have expanded care with the team), (g) comfortable (we are comfortable we know them the care manager and the therapist), (h) consistent (we have a

consistent process in place), and (i) management (we are better able to manage ‘difficult’ patients) (Table 2.5).

As clinics became more routinized over time, staff perceived significant changes in the delivery of improved quality care for patients ($p < .01$). PCPs providing care in MHI clinics were more aware of depression and perceived as doing more for their patients ($p < .01$). The most significant change in awareness for staff was from potential to adoption ($p < .05$) with the enhancement of MHI teams and tools. This awareness continues to be sustained overtime (.75) in routinized clinics. The MHI clinic staff perceived using valuable tools ($p < .05$) and knowledge of other team members’ roles ($p < .001$) as a significant change in the care they delivered. Trend analysis was not performed on the remaining change variables due to the absence of information for the potential clinic level of MHI adoption. Adoption and routinized clinic staff reported expanded team-care (.77) and a consistent process in place (.67) as the most frequent

Table 2.5 Staff Self-Reported Observations of MHI Impact on Care Delivered for Patients

	Total <i>N</i> = 50	Potential <i>N</i> = 15	Adoption <i>N</i> = 17	Routinized <i>N</i> = 18	<i>p</i>	<i>p</i> -trend
PCP Awareness	.65	0	.55	.75	.0041**	<.0001**
Use Valuable Tools	.57	0	.55	.60	.0412*	.0005**
Better Quality Care	.56	.26	.75	.65	.0055**	.0268*
Knowledge of Team Roles	.60	.13	.76	.83	.0017**	.0001**
Timely for Patient “take care of issues right then and there”	.42	N/A	.30	.55	.1170	N/A
Expanded Care Team	.77	N/A	.85	.70	.0584	N/A
Comfortable “know them”	.35	N/A	.30	.40	.4184	N/A
Consistent Process in Place	.67	N/A	.65	.70	.6203	N/A
Manage “difficult to treat” Patients	.42	N/A	.60	.25	.0134*	N/A

Pearson’s chi-squared test and *p* for trend chi square ** $p < .01$ * $p < .05$

changes in practice with MHI. Staff providing care in adoption clinics were more likely to notice the addition of expanded care (.85). Adoption clinic staff also reported managing difficult patients (.60) as a key practice change. This is often an important common initial relief for practices that have had no mental health support for their depressed patients, whereas, routinized clinics accustomed to treating depressed patients are less likely to perceive depressed patients as being difficult to treat.

Discussion

The aim of this study was to understand the social practices, shared team processes, and the facilitators and barriers to promoting positive outcomes for patients when their depression is treated in an MHI primary care clinic. Depressed patients receiving MHI visit the ER less and report improved relationship with caregivers and improved overall functioning in their lives (Reiss-Brennan et al., 2010; Reiss-Brennan, 2013). MHI staff reported improved productivity outcomes for patients (Reiss-Brennan, 2013).

Staff perspectives were gathered to explore whether the intended goals of MHI process are in line with patient outcomes. Staff providing care in clinics committed to MHI perceived patients' self-confidence and motivation to change as key factors in facilitating improved patient depression outcomes. Staff observed this motivation as the patient being prepared, taking their medication and keeping their appointments. MHI staff also identified their own increased comfort in addressing mental health as a key factor in helping patients reach their desired outcomes. The availability of mental health support and valuable assessment tools were given as facilitators in helping MHI staff feel empowered to help the patients meet their needs.

In prior research, patients in MHI were found to have long-term established relationships with their doctor (Reiss-Brennan, 2013) which is a defining role for primary care (NAS, 1994). Depressed patients are often perceived as being difficult to treat due to their complex multiple conditions, requiring both extra time and emotional energy. Sixty-six percent of all depressed patients interviewed were managing more than one medical condition. Although patients agreed that dealing with depression is difficult, they were also hopeful that they could get well and stay well. In routinized MHI clinics the complex time and emotional energy involved in dealing with depression is spread or shared by a team who are skilled and prepared to tackle the mental and social stress that often accompanies chronic disease. Therefore, in these clinics patients are less perceived as being difficult to treat.

Staff across all clinic phases agreed that fragmented care and lack of community mental health resources were barriers for patients improving their health. Further study is needed to explore the interaction between the staff with a supportive team feeling more comfortable and confident in addressing mental health problems, team and the patients' improved confidence and engagement in their care. Further study is also needed to understand the relationship between patients feeling their doctors spent time with them and their perception of their doctors when operating within a supportive team. More than half (56%) of the staff across all clinics reported time as a barrier to positive patient outcomes. Yet as clinics became more committed to MHI overtime staff felt that they had more time to promote positive outcomes for their patients. Understanding the interaction of MHI patients with care givers in a team environment with the time and

tools to facilitate communication will be helpful in planning for care coordination efforts required by health reform to implement patient-centered care.

Across all clinic phase groups (potential, adoption, routinized) staff reported trusting connections as a key factor in promoting positive outcomes for patients. As MHI became more routinized, staff defined MHI as an organized expected process that empowered them to provide better patient care through cooperative team relationships. MHI has advanced the normalization of mental health within the primary care institution *“Mental health is a good thing for us to be thinking about”* (MHI PCP) and it cultivates team bonds. MHI is an innovation that is organized, expected and enhances institutionalized cooperation.

Team members must have roles authorized through broadly accepted protocols and be trained to perform them competently. As clinics became more committed to the MHI protocols, staff reported greater knowledge of team member roles and their own role potential. Clinicians must have confidence that all team members are doing a good job in order to feel relief that they have time for more complex tasks (Bodenheimer, 2011; Margolius et al., 2012). IH medical group has operationalized and rewarded MHI team cooperation as a “regular expectation” on the frontline. Rewards are established as quality incentives for both the individual physician and the clinic staff group. MHI guides the shared care sorting decisions, the allocation of team roles and cooperative interactions between team members. These consistent interactions and monitored process steps build confidence among both patients and staff that there will be help. Coordinated team interactions were experienced more frequently by both staff and patients in routinized clinics (Reiss-Brennan, 2013).

Routine MHI clinics have had a longer time to adjust to the new paradigm of team care and encourage cooperative relationships around the normalizing of mental health in primary care. The doctors in MHI routinized clinics, in addition to acknowledging and engaging patients in the social context of their health issues, also have more available and trusted people on their team to consult. In contrast, physicians in potential clinics were providing solo mental health care, motivated by the feeling that “if I don’t do it who else will? I am all they have. I have been forced to treat depression” (Potential PCP).

Therefore engaging patients to actively participate in their care and change behaviors is influenced by reciprocal cooperation with their doctor and among the team members. As the team expands, the confidence between doctors and their patients grows together with feelings of the collective security of “not being alone.” The doctor does not feel alone with complex social issues, the mental health provider does not feel alone with complex medical issues and the patient does not feel alone with multiple conditions that require shared decisions among all members of the team. Team members will have different life experiences that may help them relate to their patients. Mental health knowledge and behaviors are therefore spread and reinforced at a more rapid rate through the team than is possible with the solo patient doctor relationship or specialist referrals and have greater potential to promote positive health outcomes.

A key finding in this study demonstrated that the MHI team interactions follow significant process steps and protocols that were commonly observed by staff. The collective knowledge of these steps supports the intended goals of the MHI program in screening, treatment and team management of depression in primary care. Assessing severity risk, delivering evidence and monitoring tools for patients are high priority

delivery standards for health providers in promoting positive outcomes and are critical to designing outcomes that matter to patients. Further analyses will explore, as clinics became more routinized, whether or not patient and staff perceptions converge in the common steps for the treatment of depression.

Teams that are well defined, rewarded and resourced and have input into establishing standard protocols can contribute to positive health outcomes for patients. Continued study in the field is needed as to how to expand the trusted team network in social settings such as primary care that are constrained by time, transaction costs and limited capacity to exchange complex health information. Institutional structures such as MHI, medical homes and the use of information technology could help reduce these transaction costs and support the cultural change and complex team communication needed to manage chronic conditions (Nutting et al., 2009; Wieche, 2004).

Conclusion

This study demonstrated that delivering mental health care via a coordinated team using the MHI approach improves staff and patient routine experiences and promotes positive patient outcomes. Patients and staff in MHI clinics described an organized process of care in which multiple players were engaged to reach positive outcomes (Reiss-Brennan, 2013). This process included staff cooperation around several expanded team steps and roles, using standard tools and engaging patients in treatment decisions. Staff cooperation is promoted by an institutional culture that values time for planning, monitoring and rewarding coordinated team care.

Patients seen in primary care often have multiple chronic conditions and require well-coordinated system of care across multiple providers (Vogeli et al., 2007). Doctors'

ability to coordinate care is likely to be influenced by the characteristics of their patients (Maeng et al., 2012) as well as the medical practice community around them and the availability of organized team support. The Institute of Medicine states that one of the roles of primary care is to “develop sustained partnerships with patients and practice within the context of family and community” (NAS, 1994 p. 1).

This study supports the well established notion that multidisciplinary teams and collaborative care provide better coordination and health care delivery and result in improved outcomes for patients (Bodenheimer, 2011; Kayton et al., 2010; Mukamel et al., 2005). MHI and team-based care has spread in IH during a decade of growing financial pressure in the health care market and within limited fee for service constrained reimbursement. Enduring social change and new models of care require social context and community where new beliefs can be practiced, expressed and nurtured (Gladwell, 2000). The integration of mental health in primary care is practiced, expressed and nurtured through MHI teams who enlist patients as active agents. Together they establish trust and accountability for improved patient outcomes. This accountability impacts the overall quality and cost of health care.

This study shows that high functioning multidisciplinary teams require effective leadership and practice norms that promote a culture of shared accountability and reliable trust (Ghorab & Bodenheimer, 2012; Margolius & Bodenheimer, 2010; Markova et al., 2012; Roth, 2012; Tapp et al., 2012; Yarnall et al., 2003). Exploration of the institutional factors that may influence the sustained routine operations of these teams to engage patients as active agents in the care of their own chronic disease will be undertaken in subsequent publications.

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CHAPTER 3

HOLISTIC CARE: WHAT MATTERS TO PATIENTS

Abstract

This article examines the facilitating factors that promote positive outcomes for patients when mental health is integrated into routine primary care. A sample of 59 patients and 50 staff were interviewed using qualitative techniques to evaluate the impact of Mental Health Integration (MHI) on depression.

Patients receiving MHI reported significantly positive outcomes as a result of a responsive shared decision process with team care givers ($p < .0001$) and a coordinated follow-up plan ($p < .05$). Patients receiving care for depression via staff teamwork were more likely to participate in treatment decision, self-management, follow-up care ($p < .01$) and lifestyle change ($p < .05$).

Using the patients' perception of their outcomes and their team-care experience to improve health care quality is essential for health reform towards patient-centered care.

Introduction

“We must understand the outcomes that matter to patients and families and what it costs to achieve them and we need teams that own the work of defining, measuring and improving value” (Lee, 2012, p. 1).

The purpose of this study is to identify key factors reported by patients that might improve the cost, quality and patient health outcomes for depression as a result of implementing the Mental Health Integration (MHI) program in the primary care setting (Reiss-Brennan et al., 2010; 2013). The combined outcomes of functioning better in life, experiencing a trusting personal relationship and access to effective treatment contribute to wellness as perceived by patients and their health team (Reiss-Brennan, 2013). This article will explore the combination of outcomes that matter to patients when they are treated for their physical and mental health by primary care-based teams.

No single outcome tells the whole story of the patients' health experience. Porter notes that for any medical condition, no single factor or outcome captures the multifaceted results of care (2010). Porter goes on to conceptualize value as dependent on the patient's experiences, and results measured by the health outcomes achieved.

Effective team functions that include patient-centered preferences and shared treatment decisions are more likely to be associated with better quality and outcomes (Barg et al., 2006; Edwards & Elwyn, 2009; Weeink et al., 2011). A socio-cultural approach inspired by MHI facilitates our understanding of the personal and cultural factors that promote effective team care for improving mental health outcomes for patients. Team exchanges among staff and patients have become increasingly critical to creating a culture of medical care that achieves positive health outcomes for patients and reduces costs and mortality (CDC, 2012; Crespo & Shrewsberry, 2007; Gallo et al., 2007; Gensichen et al., 2009; Grumbach & Bodenheimer, 2004; Khan et al., 2008; Kim et al., Kolko et al., 2011; 2010; Reiss-Brennan et al., 2010; Rost et al., 2005; Schoen et al., 2008). Insufficient research exists on effective health care delivery strategies to engage

patients in managing their symptoms and shared decision-making (Frosch et al., 2010) although there is widespread agreement that such approaches improve quality of health care delivery. Research is needed to understand how patients and staff in primary care experience new team paradigms (Saba, 2012).

Health care teams define value by the consequences that matter to patients and their families (Tinetti & Studenski, 2011). Patients living with and managing chronic disease are concerned with behaviors that produce value for reducing the burden of their symptoms and improving their functional status and the quality of their life. Patients are most likely to be motivated to participate in behaviors and interventions that improve the way they function, how they get along with others and how they manage their day-to-day tasks (Hibbard et al., 2004; Landro, 2012).

Mental Health Integration (MHI) is a team-based delivery approach that integrates recognition, screening, treatment, and management of mental health within the routine medical encounter. The term “integration” signifies the coordination of different team roles and processes into a functioning, organized whole. Patients and their families are proactive members of the MHI team. Relationships with different team members complement one another, filling different patient needs. Such integration mends the traditional mind-body Cartesian separation within a team context. Intermountain Healthcare (IH) has developed and sustained MHI team based care over the span of 12 years, changing the culture of mental health care by providing psychological safety and equity for problems that are both taboo and time consuming in a busy medical practice. These problems, when normalized through trusting team relationships, improve the

quality of patients' health and reduce overall healthcare cost (Reiss-Brennan, 2010; 2013).

The overall aims of this study are to identify key factors reported by patients underlying the improved outcomes observed in MHI clinics. The focus here is on examining with qualitative and quantitative data: (a) key facilitators and barriers to improving a patient's overall functioning in life, effective treatment and engaging patients actively in their own care and recovery and (b) how patients define their experience of team care for the treatment of depression including their perceptions of "what matters most to them" and their role on the care relationship.

Background

The United States is the leading global spender in health care, yet this spending is not associated with improved longevity, reduced disability or quality of life (Baicker & Chandra, 2004; Berwick, 2008). Although patients with multiple physical and mental health conditions consume the most health care, the US does not invest in lifestyle and health promotion spending; less than 1% of spending is applied to preventing avoidable chronic diseases (Baicker & Chandra 2009; CDC, 2012; Tinetti & Studeniski, 2011; Yarnell et al., 2003). Futile attempts have been made to contain costs through restricting and controlling eligibility of providers, diagnoses and treatments. The result has fragmented care and dramatically increased the number of uninsured families who seek help for complex chronic disease in the nation's strained emergency departments (Economist, 2009; Gold, 2011). The Affordable Care Act (ACA) of 2010 is guiding the reform of a health system that rewards more treatment of more people to a system that rewards providers for building value for patients (APHA, 2013). Health delivery

organizations are implementing incentives that link physician payments to improved patient outcomes (APHA, 2013).

Chronically ill patients with multiple conditions require well-coordinated system of care across multiple providers (Vogeli et al., 2007), who are attuned to meeting their physical and emotional needs. Depression, the most common mental health condition seen in primary care, often occurs with and compromises care of other chronic illnesses, yet due to stigma and secrecy it often goes undetected, undiagnosed, or under-treated (Mojtabai, 2009; Rost et al., 1998; Wells et al., 2000). Depression is a complex chronic medical condition that imposes significant social and economic burdens on patients, families, medical providers and employers (Chisholm et al., 2004; Druss et al., 2000; Goetzel et al., 2002; Lin et al., 2000; Soni, 2009; Strine et al., 2008; Welch et al., 2009). Available and tested evidence-based collaborative team approaches such as MHI and guidelines for treating depression within the context of primary care are effective, yet remain difficult to adopt and implement in real-world practice (Gilbody et al., 2006; Lorig et al., 2001).

Doctors' ability to coordinate care is likely to be influenced by the characteristics of their patients (Maeng et al., 2012) as well as the practice community around them (Reiss-Brennan, 2013). Engaging patients through shared decisions and accountabilities regarding their health outcomes is key among present-day drivers for transforming how care is paid (APHA, 2013; Edwards & Elwyn, 2009). Using the patients' perception of their outcomes and their team care experience to improve health care quality is, therefore, timely for realigning health reform efforts towards patient-centered care.

Mental Health Integration

Over the last 12 years, Intermountain Healthcare has developed MHI as a comprehensive team-based innovation for caring for the mental and physical health of patients and their families in primary care settings. “MHI is defined as a standardized clinical and operational team relational process that incorporates mental health as a complementary component of wellness and healing for life” (IH, 2007). The MHI team care process model (CPM) has disseminated a new social message of normalizing mental health as a routine part of everyday health exchanges between patients and their doctors and among clinic staff. This message is communicated through standard protocols of the MHI CPM that specifies an organized process to guide the allocation and activation of each team role. Physicians are accountable for making patients aware that they have access to expanded team care.

Prior research revealed that patients in MHI clinics preferred care that included multiple persons working together with their doctors to address their mental physical and family health issues (Reiss-Brennan, 2013). Patients receiving care in MHI clinics reported improved relationships with caregivers and improved overall functioning in their lives (Reiss-Brennan, 2013). Staff providing MHI care reported improved productivity outcomes for their patients (Reiss-Brennan, 2013).

The MHI team includes all of the primary care providers (PCPs) and support staff, who are integrated with practice managers, mental health professionals, community advocates, care management and the patient and his/her family. This multidisciplinary clinical team is organized under the leadership of the clinic physician in partnership with the patient and family. Each member of the team is trained in specific responsibilities

that contribute to a collective whole-health care plan. The physician, patient and family use comprehensive assessment tools to review the complexity and severity of their health concerns and to decide together what level of team care is needed to reach their desired outcomes. Team resources are then allocated to meet the complexity (mild, moderate, high) of the patients identified needs. Team members are trained in communication and shared decision-making documentation that follows standardized MHI protocols that is designed to match team resources to the complexity and severity of the patient and family's health concerns. Team communication and coordination are further facilitated through a shared electronic medical record (EMR) and clinic based nursing care managers that follow patients' progress. Patients have direct phone and email access to their physician and team.

Patients and family members have a defined complementary role on the team that requires a process of co-production and mutual aid to reach positive outcomes. Co-production approaches assume that people who use services have expertise and assets that are essential to creating effective services and good practice (Needham, 2009). The MHI team approach assists patients and families to obtain the education and services they need to manage their mental health and other chronic conditions, while engaging them in self-management and peer support activities that promote recovery and wellness.

Interventions that include family and peer support in the context of managing chronic disease are cost effective, and enhance protective factors that can affect patient outcomes over time (Elliott et al., 2010; Fisher et al., 2000; Martire et al., 2008; Shimazu et al., 2011).

A partnership between IHC and the local Utah chapter of the National Alliance on Mental Illness (NAMI) promotes family community-based support and peer engagement. MHI nursing care managers are able to rely on this community resource to link patients and families with “no cost” support groups and peer counseling that can help foster recovery.

Team-based care such as MHI requires a fundamental change in mindset for physicians (Bodenheimer, 2011). Clinics often claim to have teams, but doctors provide most of the care and delegate tasks to support staff or hand off referrals to specialty providers. The end result of this traditional delivery model is fragmented, uncoordinated care and poor health outcomes (Katon, 2010). The integration model aims to address these problems, going far beyond “co-location” of a specialty care provider or “physician solo” care.

The MHI innovation has demonstrated consistent diffusion over time within a rapidly growing medical group that provided community health care for 806,761 patients and their families in 2011 in the state of Utah. Rogers (1995) defines diffusion as a social change process in which a new idea is communicated through organized channels over time among members of a social system. Through this diffusion process members communicate, create and share information related to the new idea to reach a mutual understanding, a process that alters the structure and workings of the social system of health care delivery. MHI is designed to facilitate diffusion. Physician, nursing and operational regional local leaders were identified and trained as MHI champions (Rogers, 1995) for the adoption of diffusion of the new care process.

Methods

This investigation explores the perceptions of patients' receiving care for depression in MHI in three phases of MHI adoption. Three phases were identified by the clinic's stage of implementation commitment to MHI: (1) potential, (2) adoption, and (3) routinized (Rogers, 1995). *Potential* clinics have been trained in the MHI CPM, are assessing current resources and readiness for MHI adoption but do not have an MHI operational plan. Therefore potential clinics are not yet committed to implementing MHI. *Adoption* clinics have implemented MHI for at least 2 years. During this time they have engaged leadership champions, recruited and hired team staff, redesigned roles and workflow and offered MHI care to their patients. Adoption clinics request support from regional leaders to help resolve barriers and resistance to change. They have operational commitment to pursue MHI goals. *Routinized* clinics have habituated the innovation and provide greater access to an integrated health/medical home team with coordinated care for depression. These clinics have established and continuous administrative leadership and clinical team; MHI workflows are considered a clinic norm. Routinized clinics have fully implemented and sustained the five MHI key elements—leadership, team-based care, information technology, partnering with community stakeholders, and financing for over 5 years. Clinic implementation of these key elements are monitored and reinforced by local leaders (physician, nurses and managers) who promote their teams' progress toward the routinized phase of implementation.

Design

A 2-year multiclinic comparative case study of nine primary care clinics was conducted within Intermountain Healthcare in Salt Lake City, Utah. Clinics used in prior

research (Reiss-Brennan et al., 2010) were selected based on the phase of implementation: three routinized; three adoption; and three potential clinics. Across each of the three phased groups, clinics were matched for 12 months (2010) by patient visit volumes, provider numbers and types, and payor mix (% Commercial, % Medicaid, % Medicare, % Uninsured/Charity). Twelve-month visit volumes were further analyzed for the number of mental health related visit claims. The claims analysis utilized ICD-9 mental health related codes documented in the depression registry. All patients treated at the clinics have access to physical and mental health care regardless of their ability to pay.

Sampling

Staff Recruitment

To understand the impact of MHI on staff, a purposive sample of 50 clinic staff was drawn from the three matched clinic groups based on their team role. These employed staff informants included physicians, clinic managers, nurse care managers, mental health specialists and medical support staff for each of the phased groups.

Patient Recruitment

Fifty-nine adult patients over 18 years old who received care for depression from their primary care physician (PCP) any time in the previous 12 months were chosen for the study with 20 patients from each of the three phased clinic groups. The sample was stratified by those who received treatment from their PCP only, those who had additional contact from either a care manager, mental health specialist or both. Criteria for stratification included: (1) new depression diagnosis in registry, (2) at least one primary

care visit, (3) at least one MHI visit with (Care Manager or Mental Health Specialist), and (4) at least one prescription order or refill.

Randomly selected patient informants were approached by their nursing care managers and asked if they would voluntarily participate in the study. Patients identified as cognitively impaired or having expressed intent to harm themselves or others were excluded. Patients currently enrolled in a patient/therapist relationship for their care were excluded to prevent potential disruptions to a developing therapeutic relationship.

Data Collection

Primary data were collected from interviews conducted face to face and by telephone. Secondary data were extracted from the administrative databases.

The semistructured interview guide (Appendix B) included open-ended questions that probed respondent's perceptions of their experience of receiving care for depression or other mental health concerns in the primary care setting. Patients were asked *"How did depression come up in your visit with your doctor? What were the steps that followed to determine what to do?"* They were also asked to share their thoughts about what positive outcomes they experienced or observed, what factors, if any, promoted the perceived positive outcomes, what factors may have gotten in the way of positive outcomes. Patients were also asked to share what they felt their doctor did that was most helpful for them, what advice they had for other patients experiencing depression and their willingness to share their advice. These factors were compared across the three stages of clinic implementation (potential, adoption, routinized).

Analysis

Recordings were transcribed in full text from audiotapes. They were read and reread to identify and code themes and categories that centered on particular responses to the interview guide. Interviews were aggregated by clinic phase for both staff and patients. Predominant themes were defined by the frequency of repetition by total and grouped subjects. The data relevant to each category were identified and examined using a process called *constant comparison*, which is that each coded response is checked and compared with the established categories. New categories were added until saturation was reached. The process was inclusive to reflect as many nuances in the data as possible. Categories were then grouped to reduce the number.

Quantitative analysis was carried out to identify significant difference in key demographic or theme variables across phased clinic groups. Pearson's chi-squared test, Fischer's exact tests, and analysis of variance (ANOVA) were used to test the statistical significance of difference. To further test the hypotheses listed below, that certain outcomes increased overtime by duration of commitment to MHI, linear trends in proportions across phase of MHI implementation were assessed using a *p*-for-trend chi-square analysis.

Hypotheses

1. The longer the clinic is committed to MHI, the more frequently patients would be expected to report outcome facilitating factors.
2. The longer the clinic is committed to MHI the fewer patients report lack of coordinated care as an outcome deterring factor.

3. The longer the clinic commitment to MHI, the more patients will report being (a) engaged in their care and (b) confidence in self- management.
4. The longer the clinic is committed to MHI the more patients will describe an organized team process that includes: (a) screening, (b) shared decisions regarding team treatment options, and (c) follow up plans.

Results

Clinic Characteristics

Each clinic phase group had both internal medicine and family practice providers who were treating patients with depression as identified in the depression registry. Clinic volume of patients visits and payor mix varied across the three phase groups by number of practicing providers (Appendix A).

Patient Characteristics

Of the 83 patients, 59 completed interviews corresponding to the patients' preference (56 by phone and 3 in person, 1 at home, 1 at the clinic and 1 at the research office). The length of interviews ranged from 24 minutes to 63 minutes. The sample was 70% female. Gender differences were not significant across the clinic groups (Appendix A). The average age of patient population was 51 years across the three phased clinic groups. The youngest informant was 22 years and the oldest was 84 years.

Patients across the clinic groups did not differ in their reported years of attending a clinic and PCP longevity (Appendix A). Patients appeared to stay within their clinic group of doctors; when dissatisfied they switched to another doctor in the same clinic.

Some patients also reported traveling long distances to continue their relationships with their doctors and clinics.

The volumes of claims for mental health diagnoses over 12 months was significantly lower in clinics that had routinized MHI compared to potential and adoption claims ($p < .01$), (Appendix A). Further analysis is needed to see if patients treated effectively in MHI clinics are utilizing fewer services for mental health in primary care. The patient population across all clinic groups did not differ in reported duration of years managing depression, discussing suicide during their interviews and experiencing significant external stress and mental health risk (Appendix A). Thirty-nine percent of the patients discussed the topic of suicide during their interviews. Patients described suicide in the context of having experienced thoughts in the past and being glad to no longer have them. Most mentioned that these thoughts were something that alerted them or their families to seek help from their doctors and that something was “very wrong.” All patients who discussed suicide confirmed that they had discussed these thoughts with their doctors. Most patients, 80%, reported feeling hopeful that they could get well and stay well.

Of patients, 66% discussed managing more than one health condition in addition to depression. Multiple conditions commonly discussed included diabetes, chronic pain, obesity and others. The rate of discussing obesity differed significantly across clinic groups.

Patients in potential clinics underreported chronic pain as compared to pain documented in the depression registry ($p < .05$), (Appendix A). Chronic pain symptoms are commonly treated in primary care. Physicians are less comfortable treating and

discussing chronic pain with their patients without training and specialist support (O'Rourke et al., 2007). Patients treated in the adoption and routine clinics had significantly higher rates of pain comorbidity with their depression. Overall patients across clinic groups did not differ in percent of reported mental and physical health conditions being managed by their family members. Of patients, 56% discussed family members who were also managing mental health conditions.

Self-Reported Patient Perceptions of Factors Promoting and Deterring Outcomes

Promoting Factors

After patients were asked to describe what positive outcomes they experienced when they were able to see their doctor for both physical and mental health, they were asked to describe their perceptions of what may have promoted or deterred them from achieving their outcomes. Each subject's responses were recorded, categorized, grouped and tallied. Two key facilitating factors emerged: (1) *confidence in their provider* and (2) *their needs were met* (Table 3.1).

The facilitating factor of *confidence* included dimensions of (a) support ("*they talk to each other and they talk to me*"), (b) validation ("*they understand what I am saying*") and, (c) open communication ("*I can talk with my doctor about any health issue*").

The second facilitating factor, "their needs were met," included (a) time ("*they are responsive to me and my doctor spends time with me*"), (b) medication ("*I am finally on the right meds*"), (c) timely follow up, and (d) connected team ("*I am connected to a team that works together*") (Table 3.1).

Table 3.1 Factors Reported by Patients That Promoted or Detered Their Positive Outcomes

Promoting Factors	Total N = 59	Potential N = 19	Adoption N = 20	Routinized N = 20	p	p-trend
Confidence	.64	.68	.60	.60	.9559	.5899
They Support Me	.24	.16	.15	.40	.1186	.0730
Feel Validated	.42	.31	.50	.42	.2173	.04037
I Can Be Open	.34	.37	.25	.40	.3241	.8230
My Needs Are Met	.63	.63	.45	.80	.1037	.2639
They Are Responsive To Me and My Doctor Spends Time With Me	.44	.42	.15	.70	.0027**	.0707
I Am On The Right Meds	.32	.31	.20	.35	.5484	.8012
They Follow-up and Find A Solution	.20	.05	.20	.35	.0126*	.021*
I Am Connected To A Team That Talks To Each Other	.44	.26	.45	.60	.0424*	.0343*
Detering Factors						
Disengaged	.70	.95	.65	.50	.0086**	.0025**
Care is Not Coordinated	.30	.47	.35	.10	.0349*	.0111*
Parity Inequity and Stigma	.30	.26	.35	.30	.5722	.8090
Negative Self Attitude	.25	.37	.30	.10	.1326	.0533
Nonresponsive Staff Attitude	.17	.26	.15	.10	.3448	.1760

Pearson's chi-squared test and *p* for trend chi square **p* < .05; ***p* < .01

Patients in all clinic phase groups reported confidence as a key promoting factor. However for the second key promoting factor “my needs were met,” patients in routine clinics reported significantly more often that their doctor was responsive and spent more time with them ($p < .01$), followed up with timely solutions ($p < .05$) and connected them to team care ($p < .05$). “Being on the right meds” did not differ across clinic phased groups (Table 3.2).

Patients receiving care in adoption clinics reported lower confidence and “needs being met” than patients in potential of routinized MHI clinics. Adoption patients also

Table 3.2 Patient Views on the Process of Treating Depression in Primary Care

Themes	Total N = 59	Potential N = 19	Adoption N = 20	Routinized N = 20	p	p-trend
Shared Decisions	.53	.26	.50	.80	.0074**	.0030**
Team Activation	.56	.26	.60	.80	.0062**	.0008**
Figured It Out Alone	.29	.47	.35	.05	.0106**	.0034**
Steps						
Doctor Explained Depression	.47	.31	.50	.60	.0921	.0764
Assessment Tools Were Used	.47	.21	.50	.70	.0089**	.0022**
We Talked About Results	.25	.05	.10	.60	.0001**	.0001**
We Shared Opinions of What To Do	.20	.05	.10	.45	.0069**	.0019**
Medications Were Recommended	.71	.84	.65	.65	.4989	.1893
Referred to Nurse Care Manager	.15	0	.15	.30	.0312*	.0092**
Referred to Therapist	.44	.21	.40	.70	.0079**	.0020**
Referred to A Specialist	.25	.05	.15	.45	.0131*	.0026**
A Plan Made for Follow-up Contact	.22	0	.25	.40	.0038**	.0026**

Pearson's chi-squared test and p for trend chi square * $p < .05$; ** $p < .01$

reported the lowest response, 15%, of their “doctor is responsive and spends time.”

These findings may reflect the uncertainty and disruption of the clinics adoption of the new MHI process. Doctors initially feel burdened by time and the expectation that mental health be addressed. It is often seen as “one more thing to do” on an already demanding clinic schedule.

Patient Deterring Factors

After patient respondents described their perceptions of the key promoting factors, they were asked to describe what factors may have deterred them from achieving their outcomes. Each subject's responses were recorded, categorized, grouped and tallied. Patients perceived one overall deterring factor of ‘*disengaged*’ which resulted in barriers for achieving positive outcomes. Four deterring dimensions emerged from the tallied patient barrier responses: (1) disconnected care (*my care is not coordinated; they are not*

comfortable with mental health so pass me off; they don't explain depression), (2) stigma and inequitable access (*they labeled me as drug seeking, insurance won't pay or cover less for mental health*), (3) self attitude (*I don't want to do what doctor says*) and (4) staff attitude (*can't get through the front desk to the doctor, they don't call me back*) (Table 3.1).

Patients treated in routine clinics reported significantly less overall 'disengaged' barriers to achieving their positive outcomes ($p < .01$). Respondents did not differ across clinic phases on the deterring factors of stigma, self attitude or staff attitude. These factors highlight persistent barriers for all patients. However, patients in routine clinics reported significantly less uncoordinated care ($p < .05$).

Patient Views on the Process of Treating

Depression in Primary Care

To further understand the underlying steps of the "organized MHI process," patients and staff (Reiss-Brennan, 2013) were asked to describe the process of how depression was addressed in the office visit and what steps were followed to determine a plan of action. Each respondent's responses were recorded, categorized, grouped and tallied.

Three overall process theme categories and nine process steps emerged from the tallied patient responses. Process themes included (1) shared decision making (*we discussed results; looked them over; helped me validate and treatment options were discussed and decisions made together*), (2) team activation (*they knew I needed to add a more intense level; they knew who to contact and set it up right there*) and (3) patient figured it out alone (*I don't remember if we discussed depression; I self-diagnosed*).

Nine action steps in the process of treating depression were described by patients: (1) doctor explained depression, (2) tools were used to assess, (3) the doctor talked about the results, (4) a decision was shared about what to do, (5) medication was recommended, (6) referred to care management, (7) referred to therapist, (8) referred to psychiatrist, (9) planned timed follow-up contact (Table 3.2).

Process Themes

The MHI status of the clinic was not visible to the patients. As clinics became more routinized over time, patients described the process of depression treatment significantly more often as a shared decision interaction with their doctor ($p < .001$) and an activation of expanded team members based on level of depression severity ($p < .001$). In contrast, respondents in potential clinics significantly reported a theme of being “left on their own” to figure out their depression ($p < .05$).

Action Steps

Across clinic phases, patients did not differ on the process steps of having depression explained to them or the recommendation of medication treatment. However, as clinics became more routinized, patients significantly reported additional process steps: using assessment tools ($p < .01$), discussing results ($p < .0001$), shared opinions of what level of treatment needed ($p < .01$), contact to expanded team (care manager, therapist, psychiatrist) ($p < .01$), and a planned follow up contact ($p < .01$). Seven of the patient action steps identified by the patients were also reported by the staff (Reiss-Brennan, 2013): (1) depression was explained, (2) screening tools were used, (3) patient

and doctor discussed results, (4) doctor and patients discussed treatment options, (5) meds were started, (6) team was activated, (7) follow-up plan was established.

Patients' Perspective of Their Depression Experiences

After patients describe the treatment process steps for the depression care, the interviewer asked them to describe how depression felt to them. Patients generally described their depression as profound experiences that included both physical (felt) and cognitive (thought) qualities. Physical qualities (.40) included descriptions of depression as (*painful it hurts; having no energy, feeling sensitive and tense; a dark heavy blanket over you; feeling ill; feeling dead inside; I was a wreck; I was in a deep dark hole; it rubs off on my family; I felt lonely and empty*). Cognitive qualities (.36) included depression as thoughts of (*everyone has something wrong; nothing is right; I didn't know I was depressed—it shocked me; I was crazy nuts; I was ashamed and guilty; I had a weak character; my thoughts were jumbled; I could not make myself do anything*). There were no differences across clinic group phases in patients' description of depression.

“I have had a lot of things happen in my life but when I was depressed and suicidal that was the worst pain I ever felt in my life. I don't ever want to feel that way again. Having depression and anxiety was worse than going through my heart attack” (MHI patient).

Patient Self-Report: Doctor, Staff and Patient

Most Helpful Interventions

When patients finished describing their experiences of depression and treatment, they were asked to reflect upon what their doctor, the staff and they themselves did that

was *most helpful* to them achieving their positive outcomes. Each patient's responses were recorded, categorized, grouped and tallied. Four doctor themes, one staff and six patient *most helpful* intervention themes emerged (Table 3.3).

As clinics became more routinized, patients perceived the *most helpful* thing their doctor did in helping them reach their outcomes was 'setting up connected care' ($p < .01$). The theme of "setting up connected care" included: (*working together for the best outcome; I can call them anytime; they know what is going on before I get there; they talk to each other and laugh; they don't give up or forget about you; they set me up with someone who is a good listener like my doctor; they convince me it can be solved; they helped me put my health all together*). Patients do not perceive this helpful progress until clinics become more committed to the team care.

Table 3.3 Patient Views on Doctor, Staff and Patient Most Helpful Interventions

	Total N = 59	Potential N = 19	Adoption N = 20	Routinized N = 20	p	p-trend
Doctor Most Helpful						
PCP: Setup connected care with me	.64	.37	.65	.90	.0024**	.0005**
PCP: Respect	.54	.63	.40	.60	.0077**	.8616
PCP: Thorough	.46	.42	.35	.60	.1201	.2548
PCP: Not Rushed	.29	.21	.25	.40	.3828	.1893
Staff: Kind	.66	.79	.60	.60	.3570	.2155
Patient Role Most Helpful						
Communicate	.85	.79	100	.75	.8025	.7058
Self-Management	.27	.05	.25	.50	.0069**	.0017**
Followup	.54	.31	.75	.55	.0032**	.1518
Lifestyle	.22	.10	.15	.40	.0999	.0255*
New Attitude	.46	.53	.35	.50	.4867	.8830
Responsibility	.61	.63	.70	.50	.4189	.3914

Pearson's chi-squared test and p for trend chi square * $p < .05$; ** $p < .01$

The theme of *respect* which was more prevalent in potential 63% and routinized 60% clinics included: (*demonstrated care and concern; he was open; conscientious and aware; they remembered everything about me; nonjudgmental; interested in what was going on with me and my family; he watches me listens to me and pays attention to what I am saying; she does not discount what I am saying and makes me feel like a person; they're straightforward and we are on the same level; the made it personable; comfortable and normal; they were open to my choice and valued my research and my concerns*) (Table 3.3).

Patients overall felt that staff kindness 66% was most helpful to them when being treated for depression. The theme of *kindness* included (*friendly, not harsh, courteous, they recognize me; they support me; they smile when they see me and they are attentive to my needs*). Support staff plays a significant role in helping patients feel safe and accepted in the primary care setting.

Patients reported that they themselves also play a significant role working with their doctor and his /her staff to reach their outcomes. The six ‘most helpful’ themes that patients reported were (1) honest communication, (2) self –management, (3) keeping appointments, (4) lifestyle behaviors, (5) new attitude toward self, and 6) taking responsibility (Table 3.3).

Across all clinic phased groups, communication (.85) and taking responsibility (.61) were the most frequent self-help roles reported by the patients in helping them reach their outcomes. Patients receiving care in clinics committed to MHI reported self-management ($p < .01$) and lifestyle changes ($p < .01$) as significant roles for them in helping them reach their outcomes. Lifestyle changes are difficult and may require

additional support and incentives beyond the clinic doctor when managing chronic disease.

Patient Views of the Effects of Their Participation on their Primary Care Doctors

To further understand how patients felt about the impact of their behaviors on their team, they were asked “*When they were able to fulfill their identified role what effect this had if any, on their doctor?*”

Patient responses were recorded, categorized, grouped and tallied. Three overall “effect on doctor” themes emerged from the patient responses: (1) ‘*we are together on the same page,*’ (2) ‘*he is able to provide better care*’ and (3) ‘*it makes his job easier and he is more satisfied*’ (Table 3.4).

As clinics became more routinized over time patients perceived the fulfillment of their role as contributing to the team being on the same page ($p < .05$) and their doctor’s workload and happiness ($p < .05$). Across all phase clinic groups patients felt that their participation helped the team provide better care.

Table 3.4 Patient Views of the Effects of Their Participation on Their Primary Care Provider

Fulfilled Patient Roles Effect on PCP	Total N = 59	Potential N = 19	Adoption N = 20	Routinized N = 20	p	p-trend
Together Same Page	.53	.53	.65	.85	.0916	.0302
Better Care	.44	.37	.45	.50	.7046	.409
Easier, Happier	.25	.11	.20	.45	.0372*	.0131*

Pearson’s chi-squared test and p for trend chi square * $p < .05$; ** $p < .01$

Patients Views of What Matters Most and

Advice to Share What Matters Most

At the close of the interview patients were asked to summarize ‘*what matters most to them when they are care for their physical and mental health*’ and what advice they might have for other patients who were also struggling with depression or mental health. After providing their advice responses patients were asked: “*Given the opportunity would they be willing to share this advice with other patients and if so what effect might that have on them personally?*” Each patient’s responses were recorded, categorized, grouped and tallied. Five overall *matters most* themes and eight *advice* themes emerged from the patient responses.

Overall patients reported five valued themes that they wanted the health team to know ‘mattered most’ to them: (1) being heard; (2) trusted, competent and consistent support; (3) we matter my whole family; (4) stability and wellness and (5) getting to the root of the problem. The *what matters most* themes did not differ across phased clinic groups: “Make sure you all have a whole life approach instead of just one aspect that we are going through. We all need evidence that we are getting well and we need to recognize the small steps” (MHI Patient).

Patient Advice for Other Patients

“My doctor grounds me in reality. He reminds me that the most important things in life are not the things that are stressing me. The important things in life are the things that can get me through the stress spending time with my family and friends” (MHI Patient).

Of the 59 patients interviewed, 4 patients did not feel well enough to advise other patients. Ninety-three percent of the patients shared helpful advice. There were no differences in advice themes across phased clinic groups. Eight theme categories emerged from patient *advice* responses: (1) be patient with yourself, (2) find a good doctor, (3) stick to the treatment even when hard, (4) be proactive do your research and be knowledgeable, (5) have good support around you, (6) don't be afraid or ashamed and (7) the meds work, find the right ones.

After patients shared their advice responses, they were asked: "If they had the opportunity would they be willing to share their advice with other patients?" Of the patients interviewed, 85 % were willing to share their advice. Eight of the patients reported shyness and discomfort in speaking as reasons for declining. Fifty-eight percent of the patients who volunteered to share their advice felt that sharing their advice and their story would have a positive impact on their ability to stay well and it would feel rewarding and meaningful to them personally. For example, 1 patient responded, "I have a 'broken down story' about my dad that I would like to share. One time my dad was broken down on the side of the road, and this guy out of nowhere helped my dad to get home to us kids who were home alone by giving him an alternator. My dad said how can I pay you? The only thing the guy said to my dad is if someone you see is broken down on the side of the road, do one thing for me, help them. So I was the car broken down on the side of the road and my doctor helped me. Now it is my turn to help someone else" (MHI Patient).

Discussion

The purpose of this study was to examine patients' perceptions of the facilitating factors that promote positive outcomes when mental health is integrated as a routine part of primary care. Depressed patients receiving MHI visit the ER less frequently and report improved relationships with caregivers and improved overall functioning in their lives (Reiss-Brennan et al., 2010; 2013).

During the in-depth interviews, the research team learned that depression constituted a profound physical and mental experience for patients, what outcomes matter most to them and what advice they wanted to share with other patients. Seventy-seven percent of the patients discussed vital lessons from their experience with depression that they wanted to share with other patients. Patients felt that relaying their experiences may help someone else “get on the right path,” give meaning to their suffering and also help them stay well. Being able to help others was an important part of healing.

Of depressed patients interviewed, 66% were managing more than one medical condition. Although patients agreed that dealing with depression is difficult, they were also hopeful that with a holistic approach they could get well and stay well. In routinized MHI clinics the complex time and emotional energy involved in dealing with depression is shared by a skilled team who are prepared to tackle the mental and social stress that often accompanies chronic disease.

Confidence in their doctor was a key promoting factor for patients in all clinics. In addition to trusting their caregivers, patients in MHI clinics reported that they were able to reach their outcomes as a result of their needs being met. Patients are aware and sensitive to their doctors' time burdens and professional practice challenges. Both

patients and staff (Reiss-Brennan, 2013) in routine clinics identified time as a key factor in promoting positive outcomes and having their needs met. They reported that their doctor listened and spent time with them and did not act rushed even though they had a full waiting room: “He wasn’t an ‘in and out’ doctor where they say, ‘oh here are your meds see you later,’ or like you are basically just another patient or co-pay or look down on you.” (Patient in Routinized MHI Clinic). As clinics became more committed to MHI overtime they felt that they had more time to promote positive outcomes for their patients (Reiss-Brennan, 2013). Routine MHI staff have had a longer time to adjust to the new paradigm of team care and encourage cooperative relationships around the normalizing of mental health in primary care. The doctors in MHI routinized clinics, in addition to acknowledging and engaging patients in the social context of their health issues, also have more available and trusted people on their team to consult.

Patients receiving care in clinics committed to MHI reported positive outcomes as a result of organized and responsive shared decision processes with team care givers and improved adherence to treatment. They described being “*connected to a team that communicates with each other*” and is skilled in identifying a follow up plan that focuses on a solution. Teams engaging in good communication and practical support impact the patients’ ability to follow through and self-manage their chronic diseases (Gensichen, 2009; Margolius et al., 2012; NAS, 1994).

Across all clinic phase groups, both patients and staff (Reiss-Brennan, 2013) reported trusting connections as a key factor in promoting positive outcomes for patients. In addition to the trust factor, patients treated in routinized clinics felt less alone with

their depression their doctors discussed options and activated coordinated team protocols based on the results of standardized tools.

Routinized MHI clinics have had a longer time to adjust to the new paradigm of team care and expand trusting relationships around the normalizing of mental health in primary care. Patients treated in potential and adoption clinics where mental health was not yet a norm, were more likely to experience traditional disconnected medical care and ‘being left to figure it out on their own.’ “We didn’t talk about depression. He just prescribed my meds; there was no coordination I was left to figure it out on my own” (Patient in Potential MHI Clinic).

Patients receiving care in clinics committed to MHI felt that the most helpful thing their doctor did to help them was to set up connected team care. Patients feel a responsibility to communicate and follow up with their doctor and their team in order to reach their outcomes. In clinics with longer commitment to MHI, patients were more engaged in keeping their appointments, self-management and life style changes. Likewise patients perceived that their engagement influenced their doctor’s workload and job satisfaction. As the team expands, both patients and caregivers enjoyed the collective security of “not being alone.” The doctor does not feel alone with complex social issues, the mental health provider does not feel alone with complex medical issues and the patient does not feel alone with multiple conditions that require shared decisions among all members of the team. Mental health knowledge and behaviors are therefore spread and reinforced at a more rapid rate through the team than is possible with the solo patient-doctor relationship. Improving the cultural context of chronic disease management

decreases isolation and enhances social connectedness (Berkman et al., 2000; Krumeich et al., 2000; Stange et al., 2009).

Current focus in health reform is to understand and measure how to help patients actively engage in their treatment goals and wellness. Healthy lifestyle behaviors are difficult to achieve and more complex than the individual patients' willingness to change (Gretchen et al., 2000; Krumeich et al., 2000). This study revealed that, among the barriers that patients perceive to reaching their positive outcomes (social stigma, negative self-image and staff attitudes), lack of coordination is the most significant of all. This barrier was not prevalent in MHI clinics that had normalized mental health protocols and complementary team roles to assist patients and doctors in engaging together in shared treatment plans.

A key finding in this study demonstrated that the MHI team interactions follow significant process steps and protocols that were commonly observed by both patients and staff (Reiss-Brennan, 2013) in the routinized clinics. The longer the commitment to MHI, the more frequently patients and staff reported active engagement in the seven steps for the treatment of depression. Using the patients' perceptions of their outcomes and their team care experiences to improve health care quality is essential for health reform towards Patient-Centered care.

Conclusion

“What matters most is this: get to the root of the problem, make it affordable and successful” (MHI Patient).

Patients and staff (Reiss-Brennan, 2013) in MHI clinics described a cooperative and normalized process of care for mental health in which multiple players were

activated to help them reach their positive outcomes. This process included several expanded team connections and roles, using standard tools to communicate with each other and engaging patients in their treatment decisions. Patients in MHI clinics perceive themselves as being active members of the team influencing their doctors' performance and satisfaction.

Patients receiving care for depression via organized, trusted teamwork were more likely to participate in treatment decisions, self-management, follow-up care and lifestyle changes. This study demonstrated that integrating mental health with physical health is a shared social norm among MHI teams and a key promoting factor for patients to experience positive outcomes in routine clinics. Normalizing mental health as an organized, holistic team process within primary care offers promising results for improving outcomes for patients with chronic disease.

MHI has sustained a new culture of mental health care that values the combination of patient and staff experiences around a common set of organized process steps that improve depression outcomes. Connected and complementary team relationships offer a potential contextual explanation of the improved MHI cost and quality outcomes. Expanding treatment knowledge through these connected relationships to family and peer support networks is a promising opportunity for sustaining these improved patient outcomes (Manderscheid, 2012; Martinez et al., 2006; Shimazu et al., 2010). The success of managing chronic disease will depend on each patient's ability to engage in their own health outcome. They can only do this effectively with support from teams of caregivers, family and if possible community. A key factor in determining our health is the health of others around us (Christakis & Fowler, 2010). Receiving and

providing support to others with similar conditions and experiences may result in health benefits for patients (Heisler, 2007). Therefore social relationships can be used to reduce inequality between patients and providers and improve physical and mental wellbeing (Christakis & Fowler, 2010; Williams et al., 2008).

Patient and family voices are critical to defining, assessing and influencing the treatment and coordination of care that they need to reach their desired outcomes. Using the patients' perception of their outcomes and their care experience to improve health care quality is timely focus for realigning reform efforts towards patient-centered care.

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CONCLUSION

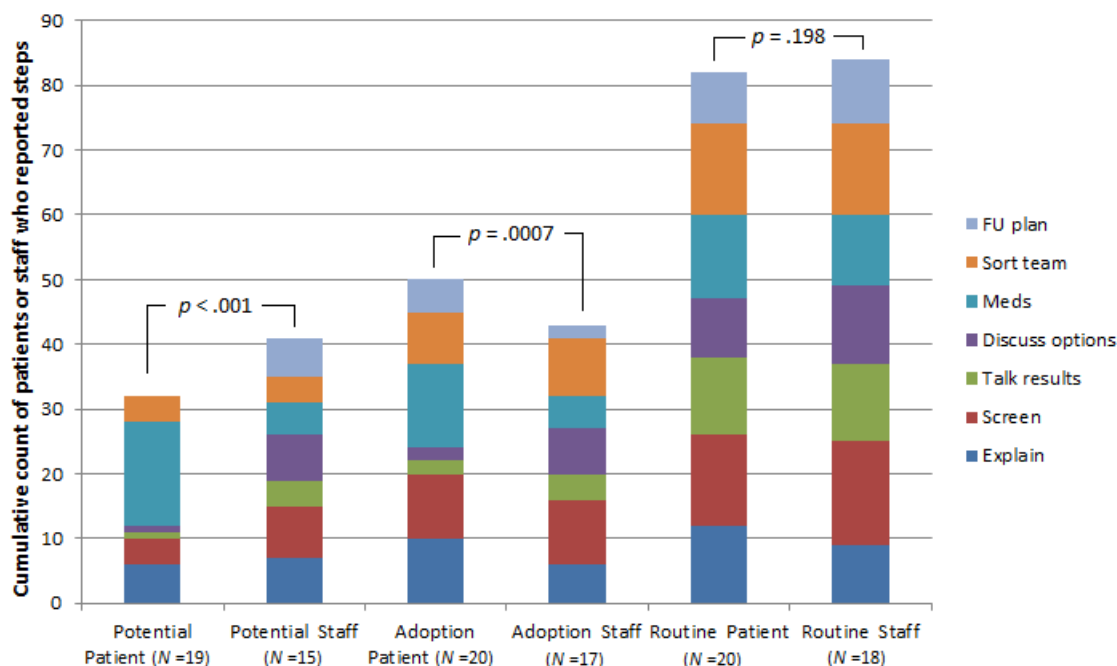
What is missing from the health reform discourse is qualitative evidence documenting the value of the team interactions between patients, their doctors and their clinic staff. Although there is widespread agreement that the social context of the health exchange is important in achieving positive outcomes, it is currently not included in the equation for improving the health of our populations. Social factors are critical to creating a culture of medical care that achieves positive health outcomes and reduces costs. For any medical condition, many combined factors contribute to patients achieving better functioning in their life, experiencing a trusting personal relationship with caregivers and having better access to effective treatment. This study demonstrated that the confidence that staff gain from engaging in teamwork to deliver mental health care is a key factor behind patient satisfaction and progress in routinized clinics. Both patients and staff in MHI clinics described an organized process of care in which multiple players were activated to help them reach their positive outcomes (Reiss-Brennan, 2013). Staff cooperation was achieved by specifying roles, steps and providing standard tools to communicate with each other and actively engage patients in their treatment decisions. Staff cooperation is enhanced by an IH institutional culture that values taking time for planning, monitoring and rewarding coordinated team care. Patients receiving care in MHI perceive themselves as active members of the team influencing their doctors' performance and satisfaction.

A key finding revealed that the MHI team interactions follow significant process steps and protocols for the treatment of depression that were perceived by both patients and staff (Reiss-Brennan, 2013). Seven common steps emerged from the patient and staff responses: (1) depression was explained to the patient, (2) screening tools for depression were used, (3) patient and doctor talked about results, (4) doctor and patient discussed treatment options, (5) medication was started, (6) team was activated, (7) follow up plan was established.

As clinics became more routinized over time, patients and staff showed less difference ($p < .1981$) in their perception of the seven commonly described process steps (Figure 3.1). Therefore the steps prescribed for screening, team management and follow-up care for depression that were built into the MHI program to provide better results were one and the same as those perceived by patients in the routinized clinics. In other words, the MHI protocol was working for both staff and patients.

The MHI implementation phase of the clinic was not noticed by the patients. As clinics became more committed to MHI, patients described their care experience significantly more often as a shared decision with their doctor supported by team members based on their level of depression severity. In contrast, respondents in potential and adoption clinics reported being significantly more often “left on their own” to figure out their depression and having less engagement with staff.

This study supports the well established notion that multidisciplinary teams and collaborative care provide more efficient and effective health care delivery (care delivery (Bodenheimer, 2011; Kayton et al., 2010; Mukamel et al., 2005). Patients and staff (Reiss-Brennan, 2013) in MHI clinics described a standardized process of care for mental



Pearson's chi-squared test and p for trend chi square * $p < .05$; ** $p < .01$

Figure 3.1: Staff and Patient Agreement and Frequency in Common MHI Process

health in which multiple team players were engaged and connected to help patients play active roles in their own healing and recovery from depression. The next steps for MHI research will be to hold the gains achieved and improve follow up connections for patients and families. MHI and team-based care has spread in IHC during a decade of growing financial pressure in the health care market and limited fee for service constrained reimbursement. Enduring social change and new models of care require consideration of social context and community where new beliefs can be practiced, expressed and nurtured (Gladwell, 2009). The integration of mental health in primary care is practiced, expressed and nurtured through MHI teams who enlist patients as active agents. Together they establish trust and accountability for improved patient outcomes. This cooperation and accountability impacts the overall quality and cost of health care.

Our job is far from complete. Connective and complementary team relationships and active engagement of patients appear to improve MHI cost and quality outcomes. However, we must ask: Will these outcomes last? To assure that gains are sustained over patients' lifetime we must find ways to broaden the support team to family and community for a key factor in our health is the health of others around us (Christakis & Fowler, 2010; Heisler, 2007; Williams et al., 2008).

APPENDIX A

CLINIC, STAFF, AND PATIENT CHARACTERISTICS

Staff Characteristics

Fifty-five staff subjects were recruited by their Regional Nurse Consultants (RNC) and volunteered to participate. Fifty staff members consented and completed the interview. Eighty-eight percent of the physician staff were male and support staff were predominantly female. Care managers and clinic managers were predominately female and mental health specialists were predominately male. Over all clinic groups PCPs on the average had worked 8.2 years at their clinics.

Clinic	Total N = 9	Potential N = 3	Adoption N = 3	Routinized N = 3	p
Doctors					
Internal Medicine	12	3	4	5	
Family Practice	40	7	13	20	
Payor (%)					
Commercial	57.6%	52.6%	75%	45%	
Medicare	25.4%	31.6%	5%	40%	
Medicaid	6.8%	5.3%	5%	10%	
Uninsured	10.2%	10.5%	15%	5%	
Health Visit Claims (12 mos)					
Total	109,231	12,867	30,079	66,285	.0025**
Mental Health (%)	27,921 (.25)	7,213 (.56)	9,532 (.32)	11,176 (.17)	
Staff	N = 50	N = 15	N = 17	N = 18	
Gender (% female)	.60	.67	.59	.56	.8042
Avg. Years at Clinic	8.35 (6.3)	8.7 (8.1)	6.5 (4.3)	9.8 (6.2)	.3048
Patient	N = 59	N = 19	N = 20	N = 20	
Gender (% female)	.70	.76	.65	.75	.7839
Years Treated at Clinic	7.3	7.6	5.7	8.6	.2602
Years with Primary Care Provider	7.8	7.8	5.5	10	.0961
Years managing Depression	11	9.8	9.1	14	.2679
Discussed External Stress & Mental Health Risk	.73	.68	.75	.75	.8684
Discussed Suicide	.42	.53	.35	.40	.5194
Hopeful for Recovey	.80	.79	.85	.75	.7312
Discussed Diabetes	.25	.16	.20	.40	.3869
Discussed Chronic Pain	.37	.16	.45	.50	.0594
With Chronic Pain Claim in Depression Registry	.75	.52	.80	.90	.0219*
Discussed Obesity	.22	.06	.45	.15	.0073**
Discussed Family Member with Mental Health Condition	.56	.53	.45	.70	.2645
Discussed Family Member with Physical Health Condition	.32	.11	.45	.40	.0602

ANOVA and Pearson's chi-squared test: ** $p < .01$ * $p < .05$

APPENDIX B

INTERVIEW GUIDE QUESTIONS

Staff Interview Guide: Routinized MHI Clinics

I am a researcher from the Central Office of Intermountain Healthcare. We are conducting this study to better *understand the experiences of depression and mental health treatment within our primary care clinics. In particular we will study how the care process called Mental Health Integration that has been implemented in your clinic may have affected these treatment experiences. Specifically we are interested in learning from clinic physicians and staff and from patient the things that seem to be most helpful to achieve positive outcomes for patients and for staff and the things that might get in the way of those positive outcomes.*

Our interview protocol has been approved by the Intermountain Healthcare Institutional Review Board, and the study should not present any risk of psychological or physical harm to you personally. However, if you do have any concerns or discomfort with any of the questions I ask, you may at any time answer “I don’t know” to a particular question, skip a question, or stop the interview altogether. We do consider issues of confidentiality and privacy very seriously. We will be making an audio-recording and taking notes during this session, because your comments are the data in this case, and we want to be sure to accurately capture this information. Interviews will be recorded and transcribed, so that we can accurately account for your experience. Your name and any other personally identifying information will then be removed from the interview transcript and the audio-recording of your interview will be destroyed. The responses of all study participants will be summarized and grouped together in a report,

but individual participants will not be identified in that report. Any comments or quotes from individual participants that are reported will be anonymous.

Do you have any questions before we begin?

Before I ask you specifically about MHI, I'd like to first ask for your perspectives about what you would consider to be positive outcomes for patients and their families from treating depression and mental health concerns in the primary care setting.

- 1) In general, what would you consider to be positive outcomes for patients and families from the treatment of depression and mental health within primary care clinics?
- 2) What helps your clinic do those things that can promote the positive patient and family outcomes ?
- 3) What gets in the way or detracts from your clinic doing those things?
- 4) When depression comes up in the patients visit with their doctor? What are the steps that follow to determine what to do?

Now let's talk specifically about your experience with MHI. Your clinic has been doing MHI for some time (4–8 years).

Your role: _____ Years/months worked at clinic _____

- 1) In your opinion, how has MHI changed how you interact or care for patients and families who have depression or mental health concerns?
- 2) Please describe how you feel about this change? How has this change (defined by informant) affected you?
- 3) What were the barriers that had to be overcome to bring about this change? Can you describe an example?
- 4) Of all the changes you have seen what makes the most difference?
- 5) Was there anything that was lost in the transition to becoming an MHI clinic?
- 6) What do you feel you are doing in (your role) in MHI that you could not do without the help of others?
- 7) How does what you do on the health team affect what other members (doctors, staff, patients) do?
- 8) In your opinion, is the quality of care provided to depressed patients and families by your clinic better, worse, or about the same since MHI was implemented at your clinic?

- 9) In what ways, if any, is it better?
- 10) In what ways, if any, is it worse?
- 11) In what ways is it about the same?
- 12) What indications or evidences have you seen of improved patient and family outcomes since MHI was implemented at your clinic? Can you describe an example?
 - a. How would you explain or account for those improved patient outcomes?
Prompt: What do you think has helped your patients experience those improved outcomes?
Prompt: What do you think has helped your clinic promote those improved outcomes?
- 13) What indications or evidences have you seen of improved staff outcomes since MHI was implemented there? Can you describe an example?
 - a. How would you explain or account for those improved staff outcomes?
Prompt: What do you think has helped your patients experience those improved outcomes?
Prompt: What do you think has helped your clinic promote those improved staff outcomes?
- 14) Are there things about the MHI process at your clinic that you would like to see improved? How would this happen?
- 15) Is there anything else you would like to share regarding your experience or observations of MHI?

Thank you for your time.

Staff Interview Guide: Adoption MHI Clinics

I am a researcher from the Central Office of Intermountain Healthcare. We are conducting this study to better *understand the experiences of depression and mental health treatment within our primary care clinics. In particular we will study how the care process called Mental Health Integration that has been either introduced or implemented in your clinic may have affected these treatment experiences. Specifically we are interested in learning from clinic physicians and staff and from patient the things that*

seem to be most helpful to achieve positive outcomes for patients and for staff and the things that might get in the way of those positive outcomes.

Our interview protocol has been approved by the Intermountain Healthcare Institutional Review Board; and the study should not present any risk of psychological or physical harm to you personally. However, if you do have any concerns or discomfort with any of the questions I ask, you may at any time answer “I don’t know” to a particular question, skip a question, or stop the interview altogether. We do consider issues of confidentiality and privacy very seriously. We will be making an audio-recording and taking notes during this session, because your comments are the data in this case, and we want to be sure to accurately capture this information. Interviews will be recorded and transcribed, so that we can accurately account for your experience. Your name and any other personally identifying information will then be removed from the interview transcript and the audio-recording of your interview will be destroyed. The responses of all study participants will be summarized and grouped together in a report, but individual participants will not be identified in that report. Any comments or quotes from individual participants that are reported will be anonymous

Do you have any questions before we begin?

Before I ask you specifically about MHI, I’d like to first ask for your perspectives about what you would consider to be positive outcomes for patients and their families from treating depression and mental health concerns in the primary care setting.

- 1) In general, what would you consider to be positive outcomes for patients and families from the treatment of depression and mental health within primary care clinics?
- 2) What helps your clinic do those things that can promote the positive patient and family outcomes ?
- 3) What gets in the way or detracts from your clinic doing those things?
- 4) When depression comes up in the patients visit with their doctor? What are the steps that follow to determine what to do?

Now let’s talk specifically about your experience with MHI. Your clinic has been implementing MHI for two or more years.

Your role: _____ Years/months worked at clinic _____

- 1) Are you familiar with Intermountain's Mental Health Integration (MHI) care process model? If no, provide information sheet, briefly describe MHI team.
- 2) In your opinion, how has MHI changed how you interact or care for patients and families who have depression or mental health concerns?
- 3) Please describe how you feel about this change? How has this change (defined by informant) affected you?
- 4) What were the barriers that you have observed that make it hard to bring about this change? Can you describe an example?
- 5) Of all the changes you have seen what makes the most difference?
- 6) In your opinion, is there anything that is being lost in the transition to becoming an MHI clinic?
- 7) What do you feel you are doing in (your role) in MHI that you could not do without the help of others?
- 8) How does what you do on the health team affect what other members (doctors, staff, patients) do?
- 9) In your opinion, is the quality of care provided to depressed patients and families by your clinic better, worse, or about the same since MHI was implemented at your clinic?
- 10) In what ways, if any, is it better?
- 11) In what ways, if any, is it worse?
- 12) In what ways is it about the same? What indications or evidences have you seen of improved patient and family outcomes since MHI was implemented at your clinic? Can you describe an example?
 - a. How would you explain or account for those improved outcomes?
Prompt: What do you think has helped your patients experience those improved outcomes?
Prompt: What do you think has helped your clinic promote those improved outcomes?
- 13) What indications or evidences have you seen of improved staff outcomes since MHI was implemented there? Can you describe an example?
 - a. How would you explain or account for those improved staff outcomes?

Prompt: What do you think has helped your patients experience these improved outcomes?

Prompt: What do you think has helped your clinic promote those improved outcomes?

14) Are there things about the MHI process at your clinic that you would like to see improved? How would this happen?

16) Is there anything else you would like to share regarding your experience or observations of MHI?

Thank you for your time

Staff Interview Guide: Potential Clinics

I am a researcher from the Central Office of Intermountain Healthcare. We are conducting a study to better *understand the experiences of depression and mental health treatment within our primary care clinics. In particular we will study the way you interact with clinic coworkers (managers, providers and support staff) when you are helping patients and families with depression or other mental health concerns who come to your clinic for care. Specifically we are interested in learning staff and patient perspectives about the factors that seem to have the most positive impact on outcomes for patients and for staff and about the things that support, or get in the way of those helpful factors.*

I am a researcher from the Central Office of Intermountain Healthcare. We are conducting this study to better *understand the experiences of depression and mental health treatment within our primary care clinics. In particular we will study how the care. Specifically we are interested in learning from clinic physicians and staff and from patient the things that seem to be most helpful to achieve positive outcomes for patients and for staff and the things that might get in the way of those positive outcomes*

Do you have any questions before we begin?

Doctors at your clinic provide treatment for patients and families who have depression and other mental health concerns.

Your role: _____ Years/months worked at clinic _____

- 1) In general, what would you consider to be positive outcomes for patients and families from the treatment of depression and mental health within primary care clinics?
- 2) What helps your clinic do those things that can promote the positive patient and family outcomes ?
- 3) What gets in the way or detracts from your clinic doing those things?
- 4) When depression comes up in the patients visit with their doctor? What are the steps that follow to determine what to do?
- 5) What do you feel you are doing in your role that you could not do without the help of others?
- 6) How does what you do on the health team affect what other members (doctors, staff, patients) do?
- 7) Are there things about the process at your clinic for treating patients with depression or mental health concerns that you would like to see improved? How would this happen?
- 8) Are you familiar with Intermountain's Mental Health Integration (MHI) care process model? If no, provide information sheet briefly describe MHI team.
- 9) In your opinion what support would your clinic need to implement MHI for your patients and families?
- 10) What barriers would you anticipate? How would these be addressed?
- 11) What are some strenghts of your clinic that would help faciliate a change to MHI?
- 12) Is there anything else you would like to share regarding your experience or observations of the treatment for depression or mental health concerns at your clinic?

Thank you for your time.

Patient Interview Guide: All Clinics

I am a researcher from the Central Office of Intermountain Healthcare. Thank you for scheduling this interview.

By way of review, for this study we are trying to better understand the experiences with depression treatment within our primary care clinics. Specifically, we are interested in learning from patients like you and from clinic physicians and staff the

things that seem to be most helpful to achieve positive or desired outcomes for patients and the things that might get in the way of those positive outcomes.

My questions will focus on different aspects of your experience receiving treatment for depression at *[name of clinic]* and what, if any, impact you believe the treatment has had. *We do not anticipate that the questions will be distressing to you; however, I want to remind you that your participation is completely voluntary, so if, at any time, you want to skip a particular question or stop the interview altogether, please let me know.*

And as was outlined in the consent document, we will be *making an audio-recording and taking notes* during this interview, because we want to be sure to accurately capture and represent what you say. We will protect the confidentiality of your comments by removing any identifying information from our notes, from the transcript of our recording, and from any summary report of study findings.

Do you have any questions before we begin?

- 1) From my understanding, you have been treated by your doctor at *[name of clinic]* for depression within the past 12 months. Is this correct?
- 2) For about how long altogether have you been receiving healthcare (or treatment for depression) at the clinic?
- 3) For about how long have you been managing depression and mental health concerns in your life?
- 4) How would you describe your experience of depression? What does or did it feel like for you?
- 5) In General, what do feel are the positive outcomes for you in receiving care for your depression or other mental health concerns in your doctors office?
- 6) When your treatment is successful what do you notice that is different for you or your family?
- 7) Thinking about your expereince with your doctor and at the clinic what are some things that you feel promoted or helped you reach these positive outcomes?
- 8) Again, thinking about your experience, what are some things that got in the way of you reaching positive outomes?

- 9) How , if at all, was this experience different then other medical consultations you have had regarding your health?
- 10) Can you walk me through the process (steps) of what happened at the clinic from the beginning of when you first talked with your doctor to starting treatment and now.[your personal experience]
- 11) In what way, if at all, did your experience with the care you recevied change the way you think about depression or mental health?
- 12) In what way, if at all, did it change how your family or support system think about depression or mental health?
- 13) In thinking about your doctor and his staff at the clinic they each have things that they do to help patients with their concerns. What did your doctor do that was most helpful to you in reaching your outcomes?
- 14) What did other clinic staff do that was most helpful to you?
- 15) What were some things that were least helpful to you?
- 16) In thinking about your experience how would you describe your role in reaching your outcomes?
- 17) In what way do you you think what you did in your role as a patient effected what they (your doctor and staff) did?
- 18) In summary, how would you describe what matters most to you and your family in caring for your mental and phsyical health?
- 19) In your opinion how did your doctor and the staff address what matters to you most ?
- 20) If not addressed, what could your doctor do to better understand what matters to you in getting well and staying well?

The next few questions will hopefully help us understand what, if any, support patients and families need in managing their health and specifically about your perceptions of your natural way of seeking support.

- 21) When you do not feel well or you are distressed who do you most commonly talk to or go to for help?
 - a. No one
 - b. My support is exhausted

c. Spouse, friend, clergy etc.

d. Other _____

22) After you leave your doctor and the clinic what kind of support, if any, do you feel you need to get well and stay well?

23) How connected are you to this support?

e. Immediate (live together, see a lot)

f. Somewhat (see once in awhile, in town, church, at work)

g. Distant (rarely see, don't know)

h. Other (_____)

24) Can you describe a time when you shared with someone in your support network your depression care experience?

25) How did this experience of telling someone your depression story effect you?

26) In thinking about your experience with depression how satisfied were you with the quality of care you received from your doctor?

1 (not satisfied) - 2 - 3 (somewhat satisfied) - 4 - 5 (very satisfied)

27) In thinking about this depression care experience, how satisfied are you with the quality of your health today?

1 (not satisfied) - 2 - 3 (somewhat satisfied) - 4 - 5 (very satisfied)

What would it take for you to get to a -4- or -5-?

28) In what way are you hopeful that you can get better and stay well?

29) Please share how you think we can improve the care experience for you and your family?

30) What advice or messages do you have for other patients or their family that may be struggling with depression?

31) If given the opportunity, in what ways would you be comfortable sharing this advice?

32) Is there anything else you would like to tell us, or would like us to know?

Thank You For Your Time

APPENDIX C

PATIENT QUOTES

Patients were asked, after the concluding interview, “Is there anything else you would like us to know”? Below are some of their responses.

“It’s all about people. Everything we have talked about related to caring for my mental and physical health is about understanding and kindness. It’s about helping people because we are not alone and we can’t be alone” [E: 17]

“Make sure you all have a whole life approach instead of just one aspect that we are going through. We all need evidence that we are getting well and need to recognize the small steps” [E: 20]

“Let people and doctors know we are hurting otherwise they would not have a job” [E: 14]

“My doctor grounds me in reality. He reminds me that the most important things in life are not the things that are stressing me. The important things in life are the things that can get me through the stress spending time with my family and friends” [E: 22]

“I have had a lot of things happen in my life but when I was depressed and suicidal that was the worst I ever felt in my life. I don’t ever want to feel that way again. Having depression and anxiety was worse than going through my heart attack” [E: 24]

“Can’t you start a support group at my clinic for us to be in touch with other people who know what we are going through? I can’t make commitments like I use to because of my pain. I have to break them sometimes. But just because I don’t make it one week or one month I am not out of the circle.” [E: 29]

“People are pretty uncomfortable with the whole idea of mental illness because a lot of people see someone who they think is crazy and it reflects on the. Those of us who are survivors usually figure out a lot of stuff in the mental illness game. But there are a lot of people who don’t survive and that is unfortunate because with all the stigma, they don’t think that something is physically wrong with them. They just think it is all in their head and doctors should be teaching that. But doctors are just people too and they don’t always get it right but I think they should post their grades in the exam rooms they work in. I would like to see their grades so I know what I am getting.” [E: 25]

“I have a broken down story about my dad. One time my dad was broken down on the side of the road, and this guy out of know where helped my dad to get home to us kids who were home alone by giving him an alternator. My dad said how can I pay you? The only thing the guy said to my dad is if someone you see is broken down on the side of the road, do one thing for me, help them. So I was the car broken down on the side of the road and my doctor helped me, now it is my turn.” [E: 26]

“Now that I am on the right meds and the support behind me from the whole team, I have been able to change my eating habits. The education is so helpful now. There is a lot of wellness we could teach each other. There is a relationship kinship you develop with your caregivers that is very important in us getting well. In my life my

reach does not stop when I don't have contact. I feel a kinship to the people I have helped over the years. I think our doctor feels that kinship to us." [E: 30]